

**NOTICE OF PROPOSED RULEMAKING**  
**MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS**  
**FIVE PERCENT PLAN RULEMAKING PROJECT**

**PREAMBLE**

**1. Sections affected**

**Rulemaking action**

Rule 200	Amend
Rule 310	Amend
Rule 310.01	Amend
Appendix C	Amend

**2. Statutory authority for the rulemaking:**

Authorizing statutes: A.R.S. §§ 499-474, 49-479, and 49-480)

Implementing statute: A.R.S. § 49-112

**3. List of all previous notices appearing in the register addressing the proposed rule:**

Notice of Rulemaking Docket Opening: 13 A.A.R. 2175, June 22, 2007

**4. The name and address of department personnel with whom persons may communicate regarding the rulemaking:**

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**5. An explanation of the rule, including the agency's reasons for initiating the rulemaking:**

The Maricopa County Air Quality Department (MCAQD) is proposing revisions to Rule 200, Rule 310, Rule 310.01, and Appendix C. The MCAQD is proposing these revisions to Rules 200, 310, 310.01 and Appendix C to implement control measures and increase compliance with existing rules for the Five Percent Plan for PM<sub>10</sub>. On June 6, 2007, the Environmental Protection Agency (EPA) finalized its finding that the Phoenix Nonattainment Area did not attain the 24-hour PM<sub>10</sub> standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007) Under Section 189(d) of the CAA, serious PM<sub>10</sub> nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, "plan revisions which provide for attain-

ment of the PM<sub>10</sub> air quality standard and, from the date of such submission until attainment, for an annual reduction in PM<sub>10</sub> or PM<sub>10</sub> precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area.” In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for PM<sub>10</sub> by December 31, 2007.

**PM<sub>10</sub> Nonattainment Status History:**

In accordance with 1990 Clean Air Act Amendments, the Maricopa County nonattainment area was initially classified as "moderate" for PM<sub>10</sub> pollution. As a moderate nonattainment area, Maricopa County was required to submit to the EPA a moderate PM<sub>10</sub> nonattainment area plan and to show attainment of the PM<sub>10</sub> national ambient air quality standards (NAAQS) by December 31, 1994. Moderate PM<sub>10</sub> nonattainment area plans were submitted to the EPA in 1991 and 1993.

The Maricopa County moderate PM<sub>10</sub> nonattainment area, upon the EPA's findings, failed to attain the NAAQS by December 31, 1994. Consequently, on May 10, 1996, the EPA reclassified Maricopa County as a serious PM<sub>10</sub> nonattainment area. Maricopa County was then required to submit a serious PM<sub>10</sub> nonattainment area plan, which had to include best available control measures (BACM), measures designed to achieve the maximum degree of emissions reduction for PM<sub>10</sub> sources. Maricopa County had to show attainment of the PM<sub>10</sub> NAAQS by December 21, 2001.

Emission inventories and air quality modeling analysis of existing control measures showed that attainment could not be reached by December 21, 2001. A shortfall of a 16.4% reduction in PM<sub>10</sub> concentration was identified. The CAA allows states to request an extension of this attainment date for up to five years, providing the state demonstrates that the plan includes the most stringent measures (MSM) that are included in any state's plan or achieved in practice by any State, and can be feasibly implemented in the area. Consequently, a rigorous planning effort was conducted to develop 77 additional control measures. The serious PM<sub>10</sub> nonattainment area plan was submitted to the EPA on July 9, 1999. The EPA approved the revised serious PM<sub>10</sub> nonattainment area plan in April 2002, contingent on the completion of three commitments by Maricopa County. The revisions to Rule 310 (adopted April 7, 2004) addressed the commitments.

As a result of litigation on the moderate PM<sub>10</sub> nonattainment area plan, the Arizona Department Of Environmental Quality (ADEQ's) prepared and submitted a Plan For Attainment Of The 24-Hour PM<sub>10</sub> Standard–Maricopa County PM<sub>10</sub> Nonattainment Area in May 1997. EPA partially disapproved the Arizona 24-hour Standard PM<sub>10</sub> SIP revision triggering a federal implementation plan (FIP) obligation, which remains in place, related to the area's PM<sub>10</sub> moderate area plan. The obligation resulted from

EPA disapproved those sections of the SIP addressing unpaved roads, unpaved shoulders, unpaved parking lots, vacant lots and agriculture. EPA found that the SIP did not contain measures to reduce the emissions from or the number of existing sources in these categories and therefore failed to implement reasonably available control measures. Under the court ordered consent decree, EPA finalized a FIP in July 1998 for the Maricopa County PM<sub>10</sub> nonattainment area that addresses those four categories of sources.

On July 2, 2002, the Environmental Protection Agency (EPA) found the controls proposed in the Arizona 24-hour Standard PM<sub>10</sub> SIP revision were inadequate to ensure the attainment of the PM<sub>10</sub> national ambient air quality standards (NAAQS) at the Salt River air quality monitoring sites. The finding of inadequacy included the State Implementation Plan's (SIP's) attainment and reasonable further progress (RFP) demonstrations for the 24-hour PM<sub>10</sub> standard at the Salt River monitoring sites and three other microscale sites in the Maricopa County PM<sub>10</sub> nonattainment area (Maryvale, Gilbert, and West Chandler).

Although the EPA approved Arizona's 1997 SIP revision and additional required controls proposed by Maricopa County on August 4, 1997, EPA's Aerometric Information Retrieval System (AIRS) continued to show exceedances at the Maricopa County PM<sub>10</sub> nonattainment area Salt River site - recording expected exceedances in 1999, 2000, and through three quarters of 2001. Consequently, the EPA required Arizona to submit a SIP revision to identify and implement corrective PM<sub>10</sub> control provisions in the Salt River Study Area and for similar significant sources in the Maricopa County PM<sub>10</sub> nonattainment area.

Arizona's SIP revision was required to provide for attainment in the Salt River site no later than December 31, 2006, in accordance with CAA §189(b)(1)(A) and 188(e), and was required to include control strategies that meet the best available control measures (BACM) test and the most stringent measures (MSM) test for significant sources and source categories.

The Final Revised PM<sub>10</sub> State Implementation Plan For The Salt River Area dated August 2004 contained Arizona's revisions to the State Implementation Plan for the Maricopa County PM<sub>10</sub> serious nonattainment area and included the following State Implementation Plan requirements, as described by the EPA in its Federal Register notice of disapproval (67 FR 44369, July 2, 2002):

- A modeling demonstration showing that the level of emissions reductions from application of BACM-MSM for all significant sources of PM<sub>10</sub> will result in attainment of the 24-hour NAAQS by December 31, 2006, at the Salt River PM<sub>10</sub> monitoring site, in accordance with CAA §189(b)(1)(A) and §188(e).

- Commitments to implement best available control measures (BACM)-most stringent measures (MSM) for sources significantly contributing to exceedances of the 24-hour PM<sub>10</sub> standard in the Salt River area as expeditiously as possible (CAA §189(b)(1)(B)) and a commitment that all BACM and MSM control measures adopted and applied to sources in the Salt River Study Area will be applied to all similar sources throughout the Maricopa County PM<sub>10</sub> serious nonattainment area.
- A demonstration that the plan constitutes Reasonable Further Progress (RFP) up to the attainment deadline - December 31, 2006.
- A demonstration that all the requirements of the federal Clean Air Act Amendments that pertain to serious PM<sub>10</sub> nonattainment areas are met - including CAA §110(l), §110(a)(2)(E)(i), and 40 CFR §51.280 and §51.111).

#### **Explanation For Current Rulemaking Proposals:**

For the Five Percent Plan for PM<sub>10</sub>, an analysis was again conducted to identify additional measures to reduce emissions and/or improve compliance with existing requirements. In addition, the Arizona State Legislature enacted SB 1552 that also contains requirements for additional control measures that are proposed for inclusion in the revisions to the rules proposed in this notice. The MCAQD is also proposing to re-format the rules and clarify text to address concerns and comments that arose in the enforcement process. Finally, the MCAQD is also proposing to include several control measures adopted as BACM/MSM in Maricopa County Air Pollution Control Regulations Rule 316 in June 2005 for the Salt River SIP in Rules 310 and 310.01.

From July 2006 through January 2007, the MCAQD conducted a rule effectiveness study for Rules 310, 310.01 and 316. The results of the study were applied to the 2005 periodic emission inventory for PM<sub>10</sub> to estimate emissions from the affected source categories. The study found that 51% of permitted sites complied with Rule 310 and 68% on the non-permitted sites complied with Rule 310.01. To improve the compliance rate for the rules, the proposed rule revisions include provisions to train and educate affected sources consistent with SB 1552, clarify existing rule provisions and include new provisions to increase the consistency of compliance.

The MCAQD reviewed rules from Clark County, Nevada; Pima County Department of Environmental Quality, Arizona (Pima DEQ); South Coast Air Quality Management District, California (SCAQMD); and San Joaquin Unified Air Pollution Control District, California (SJUAPCD) to identify differences between County rules and rules from areas that successfully met the December 31, 2006 attainment date.

Clark County fugitive dust rules apply to a desert environment and Clark County did attain the PM10 standard by December 31, 2006. Clark County Regulation Section 94 – Permitting And Dust Control For Construction Activities includes specific actions than an affected owner or operator must complete each day (94.7.8) and includes a subsection on Construction Activities Violations (94.10.1) that provides an extensive list of actions that may result in a violation. The MCAQD is proposing rule revisions modeled after the Clark County rule to the existing recordkeeping requirements to more clearly describe what actions are necessary in order to record the application of dust control measures daily. The MCAQD is also proposing a General Requirements subsection that includes a similar extensive list to summarize and remind owners and operators of all the various requirements contained in Rule 310.

SCAQMD Rule 403 includes a requirement that the cumulative trackout from all exits for a site shall not exceed 25 feet. This requirement was included in Rule 316 as BACM/MSM for the Salt River SIP revision. The Maricopa County Associations Of Government (MAG) included this measure as a suggested measure in the Draft Five Percent Plan. The MCAQD is proposing to apply this measure to the other fugitive dust sources in Rules 310 and 310.01.

Clark County, Pima DEQ, SCAQMD, and SJUAPCD rules all include provisions that do not allow visible emissions from activities on a site to extend beyond the property line. MAG also included this measure as a suggested measure in the Draft Five Percent Plan. The MCAQD is proposing to include this measure in Rules 310 and in 310.01 to improve compliance with the rules.

Clark County Sections 90 and 94 include requirements for long-term stabilization. Section 94.8.3 requires long-term stabilization when a site or part thereof becomes inactive for a period of 30 days or longer to be implemented within 10 days. The Clark County Section 90.2.1.1(a) does not allow the use of water where measures to prevent vehicular trespassing and movement are not effective. The MCAQD is proposing revisions to the long-term stabilization control measures that reduce the period of inactivity to 30 days and links the stabilization by water with the requirement for barriers.

Other revisions incorporate the provisions of SB 1552 that mandate training and require a dust coordinator to be onsite at all times in Rule 310. These changes are designed to improve the site oversight and increase the compliance rate with the existing rule provisions. Based on the MCAQD's experience in enforcing the current rules, several changes are proposed to clarify existing requirements. For example, the MCAQD has been receiving complaints about dust emissions from vehicles driving on dusty surfaces on construction projects at schools and hospitals and from vehicles passing dusty curbs, gutters and sidewalks. The MCAQD is proposing to clarify the definition of "area accessible to the public" by removing the word "retail" from the definition. The MCAQD is also proposing to

extend the trackout clean up requirements to include curbs, gutters and sidewalks as well as paved roads.

In Rule 310.01, the MCAQD is proposing to add the requirement to install a trackout control device to the subsection covering unpaved parking lots and the subsection covering off-site hauling of bulk materials by livestock operations. The MCAQD is also proposing to add control measures for other areas of a livestock operation beyond the livestock areas and modify the data reduction method for the opacity standard. SB 1552 does not include a de minimis threshold for vacant lots or unpaved ingress, egress, vehicle parking and use areas other than for a property with 4 or fewer residential units. The MCAQD is proposing to revise the threshold for vehicle use in open areas and vacant lots to be consistent with the de minimis threshold in the open areas and vacant lot subsection. In addition, the threshold for stabilizing an unpaved parking lot will be revised to match the requirements of SB 1552. The MCAQD is also proposing to include another provision from SB 1552 authorizing the County to enter a lot to stabilize the disturbed surface at the expense of the owner if the vacant lot has not been stabilized by the day set for compliance in the 30 day notification letter.

In Rule 200, the MCAQD is proposing to add provisions that require subcontractors working on dust generating operations to register with the County to comply with SB 1552. The subcontractors will receive a registration number that they will be required to keep readily accessible to the Control Officer.

#### **Section By Section Explanation Of Changes:**

##### **Rule 200-Permit Requirements:**

Section 301-Permits Required: To change “this rule” to “these rules” and to add as last sentence “The Maricopa County Air Quality Department issues the following permits: Title V permits, Non-Title V permits, General permits, Dust Control permits, and Permits To Burn. The standards and/or requirements for these permits are described in Section 302 thru Section 305 of this rule. Additional standards, administrative requirements, and monitoring and records requirements for some of these permits are described in individual rules of these rules, as applicable/as specified in Section 302 thru Section 305 of this rule.”

Section 305-Earth Moving Permit: To change heading “Earth Moving Permit” to “Dust Control Permit”. To change introduction “No person shall cause, commence, suffer, allow, or engage in any earth moving operation that disturbs a total surface area of 0.10 acre or more without first obtaining a permit from the Control Officer. This requirement for a permit shall apply to all such activities conducted for commercial, industrial, or institutional purposes or conducted by any governmental entity. The property owner, lessee, developer, or general/prime contractor will be responsible for

acquiring the permit. Permits shall not be required for earth moving operations for emergency repair of utilities, paved roads, unpaved roads, shoulders, and/or alleys” to “A Dust Control permit shall be required before a person, including but not limited to, the property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of Rule 310 of these rules, causes, commences, suffers, allows, or engages in any dust generating operation that disturbs a total surface area of 0.10 acre (4,356 square feet) or more. The provisions of Rule 310 of these rules shall apply to Dust Control permits, except as otherwise provided in Rule 310 of these rules.”

Section 305.1: To delete “Application: The applicant shall file an application, which includes an 8½" x 11" site map showing all linear dimensions, and shall submit a control plan as described in Rule 310 of these rules.” This information is proposed to be addressed in Rule 310.

Section 305.2: To delete “Annual Block Permit: Any person responsible for more than one earth moving operation consisting of routine operation, maintenance, and expansion or extension of utilities, paved roads, unpaved roads, road shoulders and/or alleys, and public right of ways at non-contiguous sites may submit one permit application covering multiple sites at which construction will commence within 12 months of permit issuance provided that: a. The control plan as described in Rule 310 of these rules applies to all sites; and b. The applicant submits a list of all sites, including the location and size of each site, with the application; and c. For any project not listed in the application, the applicant notifies the Control Officer in writing at least three working days prior to commencing the earth moving operation. The notice shall include the site location, size, type of activity, and start date.” This information is proposed to be addressed in Rule 310.

Section 305.3: To delete “Action On Permit Application: The Control Officer shall take final action on an earth moving permit application within 14 calendar days of the filing of the completed application. The Control Officer shall notify the applicant in writing of his approval or denial.” This information is proposed to be addressed in Rule 310.

Section 305.4: To delete “Permit Term: Earth Moving permits issued pursuant to this rule shall be issued for a period of one year from the date of issuance.” This information is proposed to be addressed in Rule 310.

Section 305.5: To delete “Permit Renewal: Earth Moving permits shall be renewed annually should the project last longer than one year from the date the permit was issued. Applications for permit renewal

shall be submitted to the Control Officer at least 14 calendar days prior to the expiration date of the original permit.” This information is proposed to be addressed in Rule 310.

New Section 306-Subcontractor Registration: To add new Section 306 to comply with Arizona Revised Statutes (A.R.S.) § 49-474.06: “306.1 A subcontractor who is engaged in dust generating operations at a site that is subject to a permit that is issued by a Control Officer and that requires control of PM<sub>10</sub> emissions from dust generating operations shall register with the Control Officer by submitting information in the manner prescribed by the Control Officer. The Control Officer shall issue a registration number after payment of the fee. The Control Officer may establish and assess a fee for the registration based on the total cost of processing the registration and issuance of a registration number. 306.2 The subcontractor shall have its registration number readily accessible on-site while conducting any dust generating operations. The subcontractor’s registration number must be visible and readable by the public without having to be asked by the public (e.g., included/posted in a sign that is visible on the subcontractor’s vehicle or equipment, included/posted on a sign that is visible in the window of the subcontractor’s vehicle or equipment, or included/posted on a sign where the subcontractor is working on the site).”

**Rule 310-Fugitive Dust:**

Rule Title: To change “Fugitive Dust” to “Fugitive Dust From Dust Generating Operations.”

Section 101: To add “(PM<sub>10</sub>).”

Section 102: To add “of this rule.”

Section 103: To change format. To add exemption for non-traditional sources. To add exemption for emergency activities. To delete “The following are exempt from the requirements of this rule: normal farm cultural practices under Arizona Revised Statutes (A.R.S.) § 49-457 and § 49-504.4, and open areas, vacant lots, unpaved parking lots, and unpaved roadways that are not located at sources that require any permit under these rules” and to add “The provisions of this rule shall not apply to the following activities: 103.1 The provisions of this rule shall not apply to normal farm cultural practices according to Arizona Revised Statutes (A.R.S.) § 49-457 and A.R.S. § 49-504.4. 103.2 The provisions of this rule shall not apply to the following non-traditional sources of fugitive dust that are located at sources that do not require any permit under these rules. These non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules. a. Vehicle use in open areas and vacant lots. b. Open areas and vacant lots. c. Unpaved parking lots. d. Unpaved roadways (including alleys). e. Livestock activities. f. Erosion-caused deposition of bulk materials onto paved surfaces. g. Easements,

rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas). 103.3 The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status. 103.4 An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 304 of this rule. 103.5 Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching performed to establish initial landscapes or to redesign existing landscapes. 103.6 Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of these rules. 103.7 An unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.”

New Section 201: To add “Area A - As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows: Township 8 North, Range 2 East and Range 3 East; Township 7 North, Range 2 West through Range 5 East; Township 6 North, Range 5 West through Range 6 East; Township 5 North, Range 5 West through Range 7 East; Township 4 North, Range 5 West through Range 8 East; Township 3 North, Range 5 West through Range 8 East; Township 2 North, Range 5 West through Range 8 East; Township 1 North, Range 5 West through Range 7 East; Township 1 South, Range 5 West through Range 7 East; Township 2 South, Range 5 West through Range 7 East; Township 3 South, Range 5 West through Range 1 East; Township 4 South, Range 5 West through Range 1 East.”

Re-Numbered Section 202: To delete “retail”. To delete “open” and to add “accessible.” Areas accessible to the public should not be limited-to retail parking lots. Parking lots for churches, schools, other institutions meet the definition. The definition of “area accessible to the public” replaces the definition of “public roadway”. The new term covers areas previously not included, such as paved parking lots accessible to the public. Maricopa County proposed this change on recommendation from enforcement/County Attorney. Maricopa County was unable to proceed with enforcement, when a contractor claimed the shopping center driveway was a site’s trackout control device, instead of installing a device prior to the exit from the building site. The proposed change will close this loophole. Because of the expansion of the “public access” theory, dust generating operations may have increased areas in which they have to use certain dust control measures. Maricopa County predicts that

the number of projects that will be newly affected by this change in terminology will be small. Additionally because of existing dust management requirements, it is expected that sources affected by this change have the necessary equipment to easily implement the new standard. The revised definition of “areas accessible to the public”, as reflected in amendments adopted by the Maricopa County Board Of Supervisors during a Pubic Hearing on April 7, 2004, is the product of Maricopa County’s collaboration with small businesses to design a definition that meets the needs of the regulated community while meeting Maricopa County’s commitments in the serious area PM<sub>10</sub> plan. The exception for paved areas that have been designated as a trackout control device would allow Maricopa County the discretion, at the time of approving a Dust Control Plan, to distinguish between suitable paved area trackout control devices that are accessible to the public and those that are not suitable (i.e., shopping mall parking lots). If a source is using a paved area accessible to the public as the trackout control device, then the paved area accessible to the public must be part of the designated work site. The source must identify such paved area accessible to the public as a trackout control device in the Dust Control Plan and must follow the requirements for maintaining a trackout control device. Regardless of an area being an interior road or not, such area accessible to the public is subject to the requirements of Rule 310.

Re-Numbered Section 203: To change format of definition of bulk material and to list only once materials that are listed twice (i.e., earth and soil).

Re-Numbered Section 204: To change format. Unloading applies to dumping activities.

Re-Numbered Section 205.3: To change “pre-wetting” to “pre-watering.” To match term used in Application For Dust Control Permit and Guidance For Application For Dust Control Permit - “pre-watering”.

Re-Numbered Section 206: To match definition of disturbed surface area to definition of disturbed surface area in Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(11) In a county with a population of two million or more persons or any portion of a county within an area designated by the Environmental Protection Agency as a serious PM<sub>10</sub> nonattainment area or a maintenance area that was designated as a serious PM<sub>10</sub> nonattainment area, no later than March 31, 2008, adopt rule provisions, and, no later than October 1, 2008, commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following: “Disturbed surface” means a portion of the earth’s surface or material placed on the earth’s surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. Vacant lots do not include any site of disturbed surface area that is

subject to a permit issued by the Control Officer that requires control of PM<sub>10</sub> emissions from dust generating operations. To move “For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 301 and Section 302 of this rule” to New Section 103.4.

Re-Numbered Section 208: To delete “fugitive dust” and to add “to be implemented and maintained in order to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.”

Re-Numbered Section 209: To change format and to change definition to match Clark County’s definition of “construction activities” in Section 94-Permitting And Dust Control For Construction Activities. To move “For the purpose of this rule, landscape maintenance and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, landscape maintenance shall not include grading, trenching, or any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes” to New Section 103.5.

Re-Numbered Section 211: To change format.

New Section 212: To add “Emergency - A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.”

New Section 213: To add “Emergency Activity - Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality.”

New Section 214: To add “End Of Work Day - The end of a working period that may include one or more work shifts but not later than 8 pm.”

Re-Numbered Section 216: To move “For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not

include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of these rules” to New Section 103.6.

Re-Numbered Section 217: To add “A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater.” To add dimensions of gravel pad to the definition of gravel pad and to remove dimensions of gravel pad from Rule 310 regarding trackout. Staff recommends that gravel pad be required to be three inches deep instead of six inches deep because experience in the field has shown six inches deep to inhibit vehicle travel rather than reduce trackout. Proposed dimensions of gravel pad are same dimensions required in Clark County’s Construction Activities Dust Control Handbook.

Re-Numbered Section 219: To delete “Open Areas And Vacant Lots - Any of the following described in Section 219.1 through Section 219.4 of this rule. For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one open area or vacant lot. 219.1 An unsubdivided or undeveloped tract of land adjoining a developed or partially developed residential, industrial, institutional, governmental, or commercial area. 219.2 A subdivided residential, industrial, institutional, governmental, or commercial lot that contains no approved or permitted buildings or structures of a temporary or permanent nature. 219.3 A partially developed residential, industrial, institutional, governmental, or commercial lot. 219.4 A tract of land, in the nonattainment area, adjoining agricultural property.” Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

New Section 223: To add “Open Storage Pile - Any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-06 or other equivalent method approved in writing by the Control Officer and the Administrator that the silt content is less than 5%.” To move definition of “open storage pile” from standards section to definitions section. Term and definition were used in Rule 310, Section 308.6 adopted April 7, 2004. To delete “covers”. An open storage pile is an open storage pile if/when such pile attains a height of three feet and a total surface area of 150 square feet or more. Such dimensions match dimensions used in South Coast’s Rule 403-Fugitive Dust definition of open storage pile.

Re-Numbered Section 224: To delete “responsible for obtaining an earthmoving permit under Rule 200, Section 305” and to add “including, but not limited to, the property owner, lessee, developer,

responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company.”

New Section 226: To add “Property Line - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.” Definition matches definition used in South Coast’s Rule 403-Fugitive Dust.

Section 230: To delete “Urban Or Suburban Open Area – The definition of urban or suburban open area is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.” Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Section 231: To delete “Vacant Lot – The definition of vacant lot is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.” Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Section 232: To delete “Vacant Parcel – The definition of vacant parcel is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.” Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Re-Numbered Section 233: To delete “larger than 5,000 square feet” and to add “material handling”, “and equipment”, and “An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities.” To change definition of “unpaved parking lot” to match Clark County’s definition of “unpaved parking lot” in Section 92-Fugitive Dust From Unpaved Parking Lots; Material Handling And Storage Yards; And Vehicle And Equipment Storage Yards.

Re-Numbered Section 234: To move “For the purpose of this rule, an unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles” to New Section 103.8.

Re-Numbered Section 237: To delete “and/or earthmoving operations”, because the phrase is included in the definition of “dust generating operations.”

New Section 301: To add general requirements for dust generating operations. General requirements for dust generating operations are intended to clarify the duties to which an owner and/or operator must comply and to distinguish between control measures, stabilization standards, and test methods. The intent of the language in Section 301 is to make it clear that regardless of a site's permitting status - permit or no permit, Dust Control Plan or no Dust Control Plan - the site must comply with all the applicable provisions of Rule 310 if engaging in a dust generating operation. Ignorance of Rule 310 through lack of a permit or Dust Control Plan is not an acceptable defense for not implementing Rule 310 provisions at a site that has dust generating operations. Also, to add a statement that requirements of Rule 310 must be complied-with before, after, and while conducting dust generating operations, including during weekends, after work hours, and on holidays.

New Section 302: To add permit requirements for dust generating operations from Rule 200-Permit Requirements. Permit requirements for earthmoving operations to be revised in Rule 200 and to reference Rule 310.

Re-Numbered Section 303: To delete "The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed 20% opacity as tested by methods described in Appendix C of these rules" and to add heading "Visible Emissions Requirements For Dust Generating Operation."

New Section 303.1: To add "Dust Generating Operation Opacity Limitation Requirement: The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed the limits listed in either one of the following: a. The owner and/or operator of a dust generating operation shall not cause or allow visible fugitive dust emissions to exceed 20% opacity. b. The owner and/or operator of a dust generating operation shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated." To add 0% opacity limit beyond the property line. 0% opacity limit beyond the property line matches standard in Rule 316-Nonmetallic Mineral Processing, standard in Clark County Section 94-Permitting And Dust Control For Construction Activities, and standard in Pima County 17.16.

Re-Numbered Section 303.2: To add heading "Exemptions From Dust Generating Operation Opacity Limitation Requirement."

Re-Numbered Section 303.2(a): To add "described in Section 303.1(a) of this rule."

Re-Numbered Section 303.2(a)(1): To delete "1" and to add "one." To add "following." To delete "in Tables 20 & 21 was" and to add "were." To remove reference to Table 20 and Table 21 and to add

control measures from Table 20 and Table 21 - regarding wind event - to Rule 310, Section 303.2(a)(1).

Re-Numbered Section 303.2(a)(2): To delete “The 20% opacity exceedance” and to add “Exceedances of the opacity limit described in Section 303.1(a) of this rule.”

Re-Numbered Section 303.2(a)(4): To delete “Maricopa County Environmental Services Department Air Quality Division” and to add “Maricopa County Air Quality Department.”

Re-Numbered Section 303.2(b): To delete “No opacity limitation shall” and to add “The opacity limit described in Section 303.1(a) of this rule shall not.”

Re-Numbered Section 303.2(c): To delete “No opacity limitation shall” and to add “The opacity limit described in Section 303.1(a) of this rule shall not.” To add “However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule.” To add requirement that all areas used to test and validate design integrity, product quality, and/or commercial acceptance and all areas not used to test and validate design integrity, product quality, and/or commercial acceptance must be stabilized and that vehicle test and development facilities may require a Dust Control permit in accordance with Rule 310, Section 302.

Re-Numbered Section 304: To move Dust Control Plan requirements from standards section to administrative requirements section.

Re-Numbered Section 304.1: To add “Section 304.1(a) or Section 304.1(b) of this rule.”

Re-Numbered Section 304.2(a): To add “Section 304.2(a)(1) or Section 304.2(a)(2) of this rule.”

Re-Numbered Section 304.2(b): To add “in Section 304.2(a) of this rule”. To delete “subsection” and to add “section of this rule.” To add “and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.”

Re-Numbered Section 304.3: To delete heading “Open Area And Vacant Lot.” To delete “an open area and/or vacant lot or.” To delete “1” and to add “one.” To delete “Sections 302.3(a) through 302.3(g)” and to add “Section 304.3(a) through 304.3(g).” To delete “a disturbed open area and/or vacant lot or.”

To delete “disturbance” and to add “visibly distinguishable stabilization characteristics.” To delete “according to the appropriate test methods in Appendix C of these rules, and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results” and to add “in accordance with the appropriate test methods described in Section 501.2(c) of this rule and in Appendix C-Fugitive Dust Test Methods of these rules.”

Re-Numbered Section 304.3(a): To delete “visible” and to add “soil.”

Re-Numbered Section 304.3(g): To delete “of the Environmental Protection Agency (EPA).”

Re-Numbered Section 304.4: To add “However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule.” To add requirement that all areas used to test and validate design integrity, product quality, and/or commercial acceptance and all areas not used to test and validate design integrity, product quality, and/or commercial acceptance must be stabilized and that vehicle test and development facilities may require a Dust Control permit in accordance with Rule 310, Section 302.

Re-Numbered Section 305: To add heading “For Dust Generating Operations” and to add “When engaged in a dust generating operation, the owner and/or operator shall install, maintain, and use control measures, as applicable. The owner and/or operator of a dust generating operation shall implement control measures before, after, and while conducting dust generating operations, including during weekends, after work hours, and on holidays. Control measures for specific dust generating operations are described in Section 305.1 through Section 305.12 of this rule.” To move the general requirements for control measures to New Section 301 and to retain in Section 305 requirements addressing specific control measures. General requirements for dust generating operations are intended to clarify the duties to which an owner and/or operator must comply and to distinguish between control measures, stabilization standards, and test methods. To delete Rule 310, Section 308 and to add work practices to specific control measures described in re-numbered Section 305.

Re-Numbered Section 305.1: To delete Table 15 and to add control measures from Table 15 to Rule 310, Section 305.1. To change heading to “Off-Site Hauling.” To add requirement to install, maintain, and use a trackout control device. Normally, scrapers would not be subject to Section 305.1, because scrapers are not often utilized to haul or transport bulk material onto a public roadway. If a scraper is

utilized for this purpose, then the compartment of the scraper that is hauling bulk material would need to be tarped. “Across the roadway” simply refers to any and all vehicle traffic that goes from one side of the roadway to the other side.

Re-Numbered Section 305.2: To delete Table 13 and Table 14 and to add control measures from Table 13 and Table 14 to Rule 310, Section 305.2 and Section 305.3. Re-numbered Section 305.2 provides for the implementation of one of three control measures - tarping, wetting the load, or limiting vehicle speed. Maricopa County has determined that bulk material hauling and transporting does produce significant emissions and at least one of the three control measures are needed to control emissions.

New Section 305.3: To delete Table 13 and Table 14 and to add control measures from Table 13 and Table 14 to Rule 310, Section 305.2 and Section 305.3.

New Section 305.4: To delete Table 11 and to add control measures from Table 11 to Rule 310, Section 305.4.

New Section 305.5: To delete Table 11 and Table 12 and to add control measures from Table 11 and Table 12 to Rule 310, Section 305.5.

New Section 305.6: To add control measures for staging areas, parking areas, material storage areas, and/or access routes to and from a site. Proposed control measures address vehicle use and parking on sites that require a permit and match Clark County’s Section 94-Permitting And Dust Control For Construction Activities.

New Section 305.7: To delete Table 3 and to add control measures from Table 3 to Rule 310, Section 305.7.

New Section 305.8: To delete Table 18 and to add control measures from Table 18 to Rule 310, Section 305.8.

New Section 305.9: To delete Table 9 and to add control measures from Table 9 to Rule 310, Section 305.9. Pre-watering is intended to control the areas where vehicles and support equipment are operating - not necessarily where the actual blasting is occurring.

New Section 305.10: To delete Table 10 and to add control measures to Rule 310, Section 305.10.

New Section 305.11: To delete Table 5, Table 6, Table 7, and Table 8 and to add control measures from Table 5, Table 6, Table 7, and Table 8 to Rule 310, Section 305.11. Section 305.11(c)(4) matches Clark County's Construction Activities Dust Control Handbook. The intent of Section 305.11 is to establish a more permanent form of stabilization than water can provide, since the site is complete and most likely will not be visited regularly by site personnel. Water, as a control measure, is too temporary in these instances.

New Section 305.12: To delete Table 19 and to add control measures from Table 19 to Rule 310, Section 305.12. To change "(electricity, natural gas, oil, water, and gas transmission)" to "(transmission of electricity, natural gas, oil, water, and gas)." To change "inside the PM<sub>10</sub> nonattainment area and "outside the PM<sub>10</sub> nonattainment area" to "inside Area A" and "outside Area A."

Re-Numbered Section 306: To delete Table 16 and Table 17 and to add control measures from Table 16 and Table 17 to Rule 310, Section 306. The dimensions of the gravel pad are minimums. If those dimensions do not produce a reduction in the trackout as required by Section 306, then the site has several options available to it, such as a grizzly, wheel washer, pavement, or extending the length of the gravel pad if that's the site's choice of action. Requiring extra length is not necessary given the other options available to the site. If visible emissions are observed crossing over the property line, then the site would be in violation of that standard. Since trackout is already outside the property line, the property line standard will have no effect on the standards for trackout.

Re-Numbered Section 307: To change "visible crust" to "soil crust."

Re-Numbered Section 308: To move project information sign requirements from standards section to administrative requirements section. Specific information required to be on the project information sign matches requirements in Clark County's Construction Activities Dust Control Handbook adopted March 18, 2003.

New Section 309: To add requirements for dust control training classes to comply with Senate Bill 1552. Basic Dust Control Training Class can be conducted or approved by the Control Officer. Comprehensive Dust Control Training Class can be conducted or approved by the Control Officer. Training class to include implementation of control measures and discussion of what opacity is. However, formal opacity certification training will not be part of the training class. Opacity certification can only be done by the EPA-approved or ADEQ-approved trainers.

New Section 310: To add requirements for a Dust Control Coordinator to comply with Senate Bill 1552. Basic Dust Control Training Class can be conducted or approved by the Control Officer. Comprehensive Dust Control Training Class can be conducted or approved by the Control Officer.

Section 401: To add requirements for Dust Control permits.

Section 402: To move elements of a Dust Control Plan from standards section to administrative requirements section.

New Section 403: To move Dust Control Plan revisions from standards section to administrative requirements section. To add requirements for Dust Control Plan revisions, if requested by the permittee, to match explanation/criteria in Guidance For Application For Dust Control Permit.

New Section 404: To add Dust Control permit-Block permit requirements from Rule 200. Dust Control permit-Bloc permit requirements to be deleted from Rule 200 and to reference Rule 310.

New Section 405: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

New Section 406: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

New Section 407: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

New Section 408: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

New Section 409: To clarify the permit posting requirements.

New Section 410: To clarify the compliance schedule. Compliance schedule in Rule 310 adopted April 7, 2004 addresses making changes to an earthmoving permit and making changes to a Non-Title V permit or a Title V permit. The requirements and/or compliance schedule for making such changes are proposed to be addressed in Section 403. Compliance schedule only lists training, because training cannot be implemented immediately/ quickly. The other updated provisions of Rule 310 can be readily implemented as soon as such provisions are adopted, so no compliance schedule is needed for those provisions.

Section 501: To add “the visible emissions requirements in Section 303 of” and “and with the stabilization requirements in Section 304 of this rule.” To specify that test methods are for visible emissions requirements and stabilization requirements.

Section 501.1(a): To add “of these rules.”

Section 501.2(a): To delete “constitutes” and to add “shall constitute.” To delete “1” and to add “one.”

Section 501.2(b): To delete “1” and to add “one.” To delete “constitutes” and to add “shall constitute.”

Section 501.2(c): To delete “Open Area And Vacant Lot”. To delete “subsection” and to add “Section.” To delete “subsection 302.2” and to add “Section 304.3.” “Open area and vacant lot” is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Section 501.2(c)(1): To delete “visible” and to add “soil.” To delete “/Steel Ball.”

Section 501.2(c)(7): To add “and equivalent” and to delete “of the EPA.”

Section 502.1: To clarify when written records must be kept and what written records must be kept. Proposed text matches Clark County’s Section 94-Permitting And Dust Control For Construction Activities.

Section 502.3: To delete “within” and to add “as soon as possible but no later than.”

Section 503: To clarify who must maintain records and for how long.

Section 504: To delete “Maricopa County Environmental Services Department” and to add “Maricopa County Air Quality Department.”

Section 504.1: To delete “C136-96A” and to add “C136-06”. To delete “1996” and to add “2006.”

Section 504.2: To delete “D2216-98” and to add “D2216-05.” To delete “1998” and to add “2005.”

Section 504.3: To delete “D1557-91(1998)” and to add “D1557-02e1”. To delete “1998” and to add “2002.”

**Rule 310.01-Fugitive Dust From Open Areas, Vacant Lots, Unpaved Parking Lots, And Unpaved Roadways:**

Rule Title: To change “Fugitive Dust From Open Areas, Vacant Lots, Unpaved Parking Lots, And Unpaved Roadways” to “Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.”

Section 101: To delete “To limit the emission of particulate matter into the ambient air from open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310-Fugitive Dust of these rules, and which do not require a permit nor a Dust Control Plan. The effect of this rule shall be to fine particulate matter (PM<sub>10</sub>) entrained into the ambient air as a result of the impact of human activities by requiring measures to prevent, reduce, or mitigate particulate matter emissions” and to add “To minimize the amount of fugitive dust entrained into the ambient air from non-traditional sources of fugitive dust by requiring measures to prevent, reduce, or mitigate fugitive dust emissions.” To clarify the purpose of Rule 310.01. To introduce/use the term “non-traditional sources of fugitive dust”, in order to identify the types of activities that Rule 310.01 is intended to regulate. Using the term “non-traditional sources of fugitive dust” will reflect that Rule 310.01 regulates more than open areas, vacant lots, unpaved parking lots, and unpaved roadways.

Section 102: To delete “The provisions of this rule shall apply to open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310-Fugitive Dust of these rules and which do not require a permit nor a Dust Control Plan. In addition, the provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and § 42-12152. The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4” and to add “102.1 The provisions of this rule shall apply to non-traditional sources of fugitive dust that are conducted in Maricopa County, except for those dust generating operations listed in Section 103 of this rule. 102.2 The provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and A.R.S. § 42-12152.” To clarify the applicability of Rule 310.01. To introduce/use the term “non-traditional sources of fugitive dust”, in order to identify the types of activities that Rule 310.01 is intended to regulate. Using the term “non-traditional sources of fugitive dust” will reflect that Rule 310.01 regulates more than open areas, vacant lots, unpaved parking lots, and unpaved roadways.

New Section 103: To change format. To add Exemptions:

103.1 The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4.

103.2 The provisions of this rule shall not apply to dust generating operations that are subject to the standards and/or requirements described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

103.3 The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status.”

103.4 An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in this rule. To move this provision from re-numbered Section 207.

103.5 Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching, performed to establish initial landscapes or to redesign existing landscapes. This provision relates-to new Section 208.

103.6 Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules. To move this provision from re-numbered Section 213.

103.7 Vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot. To move this provision from re-numbered Section 221.

103.8 An unpaved roadway (including alleys) is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles. To move this provision from re-numbered Section 231.

New Section 201: To add “Animal Waste - Any animal excretions and mixtures containing animal excretions.” Definition matches definition used in San Joaquin’s Rule 4570-Confined Animal Facilities.

New Section 202: To add “Area A - As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows: Township 8 North, Range 2 East and Range 3 East; Township 7 North, Range 2 West through Range 5 East; Township 6 North, Range 5 West through Range 6 East; Township 5 North, Range 5 West through Range 7 East; Township 4 North, Range 5 West through Range 8 East; Township 3 North, Range 5 West through Range 8 East; Township 2 North, Range 5 West through Range 8 East; Township 1 North, Range 5 West through Range 7 East; Township 1 South, Range 5

West through Range 7 East; Township 2 South, Range 5 West through Range 7 East; Township 3 South, Range 5 West through Range 1 East; Township 4 South, Range 5 West through Range 1 East.”

New Section 203: To add “Area Accessible To The Public - Any parking lot or public roadway that is accessible to public travel primarily for purposes unrelated to the dust generating operation.”

Definition matches definition in Rule 310.

Re-Numbered Section 204: To change format of definition of bulk material and to list only once materials that are listed twice (i.e., earth and soil).

Section 206: To delete “Feedlots And/Or Livestock Areas - Any area on which an operation directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity exists. To use and define the term “livestock operations.”

Re-Numbered Section 207: To delete “(or material placed thereupon) which” and to add “or material placed on the earth’s surface that”. To delete “thereby increasing the potential for the emission of fugitive dust” and to add “if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification.” To move “For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 300 of this rule” to New Section 103.4. To match definition of disturbed surface area to definition of disturbed surface area in Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(11) In a county with a population of two million or more persons or any portion of a county within an area designated by the Environmental Protection Agency as a serious PM<sub>10</sub> nonattainment area or a maintenance area that was designated as a serious PM<sub>10</sub> nonattainment area, no later than March 31, 2008, adopt rule provisions, and, no later than October 1, 2008, commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following: “Disturbed surface” means a portion of the earth’s surface or material placed on the earth’s surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. Vacant lots do not include any site of disturbed surface area that is subject to a permit issued by the Control Officer that requires control of PM<sub>10</sub> emissions from dust generating operations.”

New Section 208: To add “Dust Generating Operation - Any activity capable of generating fugitive dust, including but not limited to, the following activities: 208.1 Land clearing, maintenance, and land cleanup using mechanized equipment 208.2 Earthmoving 208.3 Weed abatement by discing or blading

208.4 Excavating 208.5 Construction 208.6 Demolition 208.7 Bulk material handling (e.g., bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations) 208.8 Storage and/or transporting operations (e.g., open storage piles, bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations) 208.9 Operation of any outdoor equipment 208.10 Operation of motorized machinery 208.11 Establishing and/or using staging areas, parking areas, material storage areas, or access routes to and from a site 208.12 Establishing and/or using unpaved haul/access roads to, from, and within a site 208.13 Disturbed surface areas associated with a site 208.14 Installing initial landscapes using mechanized equipment.” Definition matches definition in Rule 310. New Section 208 relates-to new Section 103.5.

New Section 210: To add “Emergency - A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.”

New Section 211: To add “Emergency Activity - Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality.”

New Section 212: To add “Feed Lane Access Areas - Roads providing access from the feed preparation areas to and including feed land areas at a livestock activity. These access roads are typically used to distribute feed from feed trucks to the animals.”

Re-Numbered Section 213: To move “For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules” to New Section 103.6.

New Section 214: To add “Gravel Pad – A layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter, that is maintained at the point of intersection of a paved area accessible to the public and a work site entrance to dislodge mud, dirt, and/or debris from the tires of motor vehicles and/or haul trucks, prior to leaving the work site. A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30

feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater.” Definition matches definition used in Rule 310.

New Section 215: To add “Grizzly - A device (i.e., rails, pipes, or grates) used to dislodge mud, dirt, and/or debris from the tires and undercarriage of motor vehicles and/or haul trucks prior to leaving the work site.” Definition matches definition used in Rule 310.

New Section 216: To add “Livestock Activities - Any activity directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity, including but not limited to, livestock arenas, horse arenas, and feed lots.” Definition matches definition used in South Coast’s Rule 1186-PM<sub>10</sub> Emissions From Paved And Unpaved Roads And Livestock Operations.

New Section 218: To add “Non-Traditional Source Of Fugitive Dust - A source of fugitive dust that is located at a source that does not require any permit under these rules. The following non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01- Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules: 218.1 Vehicle use in open areas and vacant lots; 218.2 Open areas and vacant lots; 218.3 Unpaved parking lots; 218.4 Unpaved roadways (including alleys); 218.5 Livestock activities; 218.6 Erosion-caused deposition of bulk materials onto paved surfaces; 218.7 Easements, rights-of-way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission).” To introduce/use the term “non-traditional sources of fugitive dust”, in order to identify the types of activities that Rule 310.01 is intended to regulate. Using the term “non-traditional sources of fugitive dust” will reflect that Rule 310.01 regulates more than open areas, vacant lots, unpaved parking lots, and unpaved roadways.

Re-Numbered Section 221: To delete “Section 211.1” and to add “Section 221.1.” To delete “Section 211.4” and to add “Section 221.3.” To move “For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot” to New Section 103.7. To delete “adjoining a developed or partially developed residential, industrial, institutional, governmental, or commercial area.” To delete “A tract of land, in the PM<sub>10</sub> nonattainment area, adjoining agricultural property.”

New Section 225: To add “Property Line - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the

boundaries dividing the areas of all sub-tenancies.” Definition matches definition used in South Coast’s Rule 403-Fugitive Dust.

New Section 227: To add “Trackout/Carryout – Any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public.” Definition matches definition used in Rule 310.

New Section 228: To add “Trackout Control Device - A gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved area accessible to the public that controls or prevents vehicular trackout.” Definition matches definition used in Rule 310.

New Section 229: To add Unpaved Access Connections - Any unpaved road connection with a paved public road.” Definition matches definition used in South Coast’s Rule 1186-PM<sub>10</sub> Emissions From Paved And Unpaved Roads And Livestock Operations.

Re-Numbered Section 230: To delete “larger than 5,000 square feet” and to add “material handling”, “and equipment”, and “An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities.” To change definition of “unpaved parking lot” to match Clark County’s definition of “unpaved parking lot” in Section 92-Fugitive Dust From Unpaved Parking Lots; Material Handling And Storage Yards; And Vehicle And Equipment Storage Yards.

Re-Numbered Section 231: To move “For the purpose of this rule, an unpaved roadway (including alleys) is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles” to New Section 103.8. To add “An unpaved roadway (including alleys) includes designated or opened trail systems and service roads regardless of surface composition.”

Re-Numbered Section 232: To delete “Section 211” and to add “Section 220.”

New Section 301: To add “General Requirements For Non-Traditional Sources Of Fugitive Dust: 301.1 An owner and/or operator of a non-traditional source of fugitive dust shall be subject to the standards and/or requirements described in this rule. Failure to comply with any such standards and/or requirements is deemed a violation of this rule. 301.2 When an owner and/or operator of a non-traditional source of fugitive dust fails to stabilize disturbed surfaces of vacant lots as required in

Section 302.4 and Section 302.5 of this rule, the Control Officer shall commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following: a. Reasonable written notice to the owner or the owner's authorized agent or the owner's statutory agent that the unpaved disturbed surface of a vacant lot is required to be stabilized. The notice shall be given not less than 30 days before the day set for compliance and shall include a legal description of the property and the estimated cost to the county for the stabilization if the owner does not comply. The notice shall be either personally served or mailed by certified mail to the owner's statutory agent, to the owner at the owner's last known address or to the address to which the tax bill for the property was last mailed. b. Authority to enter upon any said land/property where such non-traditional source of fugitive dust exists/where such disturbed surface area exists and to take remedial and/or corrective action as may be deemed appropriate to cope with and relieve, reduce, remedy, and/or stabilize such non-traditional source of fugitive dust/such disturbed surface area. Any cost incurred in connection with any such remedial or corrective action by the Maricopa County Air Quality Department or any person acting for the Maricopa County Air Quality Department shall be reimbursed by the owner and/or operator of such non-traditional source of fugitive dust." To clarify the standards to which an owner and/or operator is subject. To match Clark County's Section 94-Permitting And Dust Control For Construction Activities and Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(11) In a county with a population of two million or more persons or any portion of a county within an area designated by the Environmental Protection Agency as a serious PM<sub>10</sub> nonattainment area or a maintenance area that was designated as a serious PM<sub>10</sub> nonattainment area, no later than March 31, 2008, adopt rule provisions, and, no later than October 1, 2008, commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following: "Disturbed surface" means a portion of the earth's surface or material placed on the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. Vacant lots do not include any site of disturbed surface area that is subject to a permit issued by the Control Officer that requires control of PM<sub>10</sub> emissions from dust generating operations. (a) Reasonable written notice to the owner or the owner's authorized agent or the owner's statutory agent that the unpaved disturbed surface of a vacant lot is required to be stabilized. The notice shall be given not less than 30 days before the day set for compliance and shall include a legal description of the property and the estimated cost to the county for the stabilization if the owner does not comply. The notice shall be either personally served or mailed by certified mail to the owner's statutory agent, to the owner at the owner's last known address or to the address to which the tax bill for the property was last mailed. (b) Authority for the county to enter the lot to stabilize the disturbed surface at the expense of the owner if the vacant lot has not been stabilized by the day set for compliance. (c) Methods for stabilization of the disturbed surface of the

vacant lot, the actual cost of stabilization, and the fine that may be imposed for a violation of this section.

New Section 302: To add “Control Measures For Non-Traditional Sources Of Fugitive Dust.” To clarify the standards for control measures to which an owner and/or operator is subject.

New Section 302.1: To add “When engaged in the activities described in Section 302.4 through Section 302.10 of this rule, the owner and/or operator of a non-traditional source of fugitive dust shall implement control measures as described in Section 302.4 through Section 302.10 of this rule, as applicable.”

New Section 302.2: To add “Control measures shall be implemented to achieve the visible emissions requirements, as required for each activity and the compliance determination in Section 501 of this rule.”

New Section 302.3: To add “Failure to implement control measures as required by this rule, as applicable, and/or failure to maintain stabilization of a non-traditional source of fugitive dust with adequate surface crusting to prevent wind erosion as measured by the requirements in this rule shall be deemed a violation of this rule.”

Re-Numbered Section 302.4: To change format. To add visible emissions requirements. To describe stabilization limitations in Section 501. To change “If open areas and vacant lots are 0.10 acre or larger and have a cumulative of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 301.1 of this rule within 60 calendar days following the initial discovery of vehicle use on open areas and vacant lots” to “If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed by being driven over and/or used by motor vehicles, by off-road vehicles, or for material dumping, then the owner and/or operator shall implement one or more of the control measures described in Section 302.4(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of disturbance or vehicle use on open areas and vacant lots.” To add posting provisions as a control measure for preventing motor vehicle and/or off-road vehicle trespassing, parking, and/or access: “Prevent motor vehicle and/or off-road vehicle trespassing, parking, and/or access by posting that consists of one of the following: (a) A sign written in compliance with ordinance(s) of local, County, State, or Federal sign standards. (b) An order of a government land management agency. (c) Most current maps approved by a government land management agency. (d) Virtual posting a government land management agency.”

Re-Numbered Section 302.5: To change format. To add visible emissions requirements. To describe stabilization limitations in Section 501.

Re-Numbered Section 302.5(c)(1): To change “If open areas and vacant lots have 0.5 acre or more of disturbed surface area and remain unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 302.1 of this rule within 60 calendar days following the initial discovery of the disturbance on the open areas and vacant lots” to “If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed and if such disturbed area remains unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator shall implement one or more of the control measures described in Section 302.5(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots.” The specifications (i.e., acreage and square footage dimensions) for when an area would have-to comply with Section 302.5-Open Areas And Vacant Lots are to be revised to match the specifications (i.e., acreage and square footage dimensions) for when an area would have-to comply with Section 302.4-Vehicle Use In Open Areas And Vacant Lots, since both sections address open areas and vacant lots.

Re-Numbered Section 302.6: To change format. To add visible emissions requirements. To describe stabilization limitations in Section 501. To add trackout control device requirement and water as control measures. To add control measures for cleaning-up trackout.

Re-Numbered Section 302.6(c)(1): To change “The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 303.1 of this rule on any surface area(s) of the lot on which vehicles enter, park, and exit. For unpaved parking lots that are utilized intermittently, for a period of 35 days or less during the calendar year, the owner and/or operator shall implement one of the control measures described in Section 303.1 of this rule, during the period that the unpaved parking lots are utilized for vehicle parking” to “The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 302.6(b) of this rule [(i.e., pave; apply dust suppressants other than water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site; uniformly apply and maintain surface gravel; or apply water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site.)] on any surface area(s) of the lot on which vehicles enter, park, and exit. (a) If an unpaved parking lot is utilized for a period of 35 days or less during the calendar year, the owner

and/or operator shall implement one or more of the control measures described in Section 302.6(b) of this rule [(i.e., pave; apply dust suppressants other than water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site; uniformly apply and maintain surface gravel; or apply water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site)] during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented. (b) If an unpaved parking lot is utilized for more than 35 days during the calendar year, the owner and/or operator shall implement one or more of the control measures described in Section 302.6(b)(1) through Section 302.6(b)(3) of this rule [(i.e., pave; apply dust suppressants other than water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site; or uniformly apply and maintain surface gravel)] during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented.”

Re-Numbered Section 302.6(c)(3): To add “If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout.”

Re-Numbered Section 302.6(c)(4): To add “Parking, maneuvering, ingress, and egress areas at developments other than residential buildings with four or fewer units shall be maintained with one or more of the following dustproof paving methods: (a) Asphaltic concrete. (b) Cement concrete. (c) Penetration treatment of bituminous material and seal coat of bituminous binder and a mineral aggregate. (d) A stabilization method approved in writing by the Control Officer and the Administrator.” To match Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(5) In a county with a population of two million or more persons or any portion of a county in an area designated by the Environmental Protection Agency as a serious PM<sub>10</sub> nonattainment area or a maintenance area that was designated as a serious PM<sub>10</sub> nonattainment area, no later than March 31, 2008, adopt or amend codes or ordinances and, no later than October 1, 2008, commence enforcement of those codes or ordinances as necessary to require that parking, maneuvering, ingress, and egress areas at developments other than residential buildings with four or fewer units are maintained with one or more of the following dustproof paving methods: (a) Asphaltic concrete. (b) Cement concrete. (c) Penetration treatment of bituminous material and seal coat of bituminous binder and a mineral aggregate. (d) A stabilization method approved by the county.

Re-Numbered Section 302.6(c)(5): To add “Parking, maneuvering, ingress, and egress areas 3,000 square feet or more in size at residential buildings with four or fewer units shall be maintained with a paving or stabilization method authorized by the county by code, ordinance, or permit.” To match Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(6) In a county with a population of two million or more persons or any portion of a county in an area designated by the Environmental Protection Agency as a serious PM<sub>10</sub> nonattainment area or a maintenance area that was designated as a serious PM<sub>10</sub> nonattainment area, no later than March 31, 2008, adopt or amend codes or ordinances and, no later than October 1, 2009, commence enforcement of those codes or ordinances as necessary to require that parking, maneuvering, ingress, and egress areas 3,000 square feet or more in size at residential buildings with four or fewer units are maintained with a paving or stabilization method authorized by the county by code, ordinance, or permit.

Re-Numbered Section 302.7: To change format. To describe stabilization limitations in Section 501. To add requirement to conduct vehicle counts/traffic counts.

New Section 302.7(c)(2): To add “A person, who allows 150 vehicle trips or more per day to use an unpaved roadway (including an alley) in the PM<sub>10</sub> nonattainment area, shall be responsible for conducting vehicle counts/traffic counts to determine if 150 vehicle trips or more per day occur on an unpaved roadway (including an alley). Two separate 24-hour traffic counts shall be conducted. The average vehicle counts/traffic counts on the highest trafficked days shall be recorded and provided to the Control Officer in writing within 60 days of verbal or written request by the Control Officer.”

New Section 302.7(c)(3)(b): Control measure(s) shall be considered effectively implemented under the following conditions: (b) When one of the control measures described in Section 302.7(b) of this rule is implemented on 5 miles of unpaved roadways (including alleys) having vehicle traffic of 150 vehicle trips or more per day within one calendar year beginning in calendar year of 2008. If the control measure described in Section 302.7(b)(2) of this rule is implemented, the unpaved roadways (including alleys) must be maintained so as to comply with Appendix C of these rules.”

Re-Numbered Section 302.8: To change format. To add visible emissions requirements. To describe stabilization limitations in Section 501. To add control measures for cleaning-up trackout. To change “feedlots and/or livestock areas” to “livestock activities.”

New Section 302.8(b): To add “Control Measures: (1) For unpaved access connections: (a) Apply and maintain dust suppressants other than water; or (b) Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase. (2) For unpaved feed lane access areas: (a) Apply and

maintain dust suppressants other than water; or (b) Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase. (3) For bulk material hauling, including animal waste, off-site and crossing and/or accessing a paved area accessible to the public: (a) Load all vehicles used to haul bulk material, including animal waste, such that the freeboard is not less than three inches; (b) Prevent spillage or loss of bulk material, including animal waste, from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); (c) Cover cargo compartment with a tarp or other suitable closure; and (d) Install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site. (4) For corrals, pens, and arenas: (a) Apply water; or (b) Install shrubs and/or trees within 50 feet to 100 feet of corrals, pens, and arenas."

New Section 302.8(c)(3): To add "If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout."

Re-Numbered Section 302.9: To change format.

Re-Numbered Section 302.9(b): To delete "Opacity Limitation: For the purpose of this rule, control measures shall be considered effectively implemented when opacity observations for fugitive dust emissions from erosion-caused deposition of bulk materials onto paved surfaces do not exceed 20% opacity, as described in Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rules" and to add "Additional Requirements: (1) In the event that erosion-caused deposition of bulk materials or other materials occurs on any adjacent paved roadway, paved parking lot, curb, gutter, or sidewalk, the owner and/or operator of the property from which the deposition eroded shall implement both of the control measures described in Section 302.9(a) of this rule. (2) Failure to comply with both of the control measures described in Section 302.9(a) of this rule shall constitute a violation of this rule."

Re-Numbered Section 302.10: To change format. To add requirement to conduct vehicle counts/traffic counts. To add control measure "install locked gates at each entry point". To describe stabilization limitations in Section 501. To change heading "Easements, Rights-Of-Way, And Access Roads For Utilities (Electricity, Natural Gas, Oil, Water, And Gas Transmission)" to "Easements, Rights-Of-Way, And Access Roads For Utilities (Transmission Of Electricity, Natural Gas, Oil, Water, And Gas)." To change "If an owner and/or operator allows 150 vehicles or more per day to use an easement, right-of-way, and access road for utilities (electricity, natural gas, oil, water, and gas transmission) in the PM10 nonattainment area, then such owner and/or operator shall first implement one of the control measures described in Section 307.1 of this rule" to "The owner and/or operator of a

non-traditional source of fugitive dust that involves easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas) that are used by 130 vehicle trips or more per day in Area A shall be subject to the stabilization requirements described in Section 302.10(a) of this rule and unless otherwise specified and/or required, comply with one of the control measures described in Section 302.10(b) of this rule and the additional requirements described in Section 302.10(c) of this rule.”

Re-Numbered Section 302.10(b)(2): To change “Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 307.2 of this rule” to “Control Measures: (2) Apply dust suppressants other than water.”

New Section 302.10(b)(4): To add “Control Measures: (4) Install locked gates at each entry point.”

Re-Numbered Section 302.10(c): To change “For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from easements, rights-of-way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission) do not exceed 20% opacity and meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rules: a. Silt loading is not equal to or greater than 0.33 oz/ft<sup>2</sup>; or b. Silt content does not exceed 6%” to “Additional Requirements: (1) If an owner and/or operator allows 130 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in Area A, then such owner and/or operator shall first implement one of the control measures described in Section 302.10(b) of this rule. (2) A person, who allows 130 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in Area A, shall be responsible for conducting vehicle counts/traffic counts to determine if 130 vehicle trips or more per day occur on an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas). Such person shall provide to the Control Officer written results of such vehicle counts/traffic counts within 60 days of verbal or written request by the Control Officer. (3) Control measure(s) shall be considered effectively implemented when the easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) achieves the compliance determinations described in Section 501 of this rule.”

Section 501: To add opacity observations. To change title of test method referenced in Appendix C, Section 2.3 to “Test Methods For Stabilization-Soil Crust Determination -The Drop Ball Test. To match Clark County’s Section 94-Permitting And Dust Control For Construction Activities. To delete “Stabilization Observations” and to add “Compliance Determination: To determine compliance with this rule, the following test methods shall be followed.”

New Section 501.1: To add “Opacity Observations: a. Opacity observations to measure visible emissions shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination Of Opacity Of Emissions From Stationary Sources For Time-Exception Regulations). Emissions shall not exceed the applicable opacity standards of this rule for a period aggregating more than three minutes in any 60-minute period. b. Opacity observations to determine compliance with Sections 302.4, 302.6, 302.7, 302.8(a)(1), 302.8(a)(2), and 302.10 of this rule shall be conducted in accordance with the techniques specified in Appendix C (Fugitive Dust Test Methods) of these rules.”

Re-Numbered Section 501.3(a): To delete “visible” and to add “soil.” To delete “/Steel Ball.”

Section 502: To delete “within” and to add “as soon as possible but no later than.”

Section 503: To delete “one year” and to add “two years.”

**Appendix C-Fugitive Dust Test Methods:**

Section 2.2: To delete “and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results.”

Section 2.3: To change heading “Visible Crust Determination” to “Soil Crust Determination (The Drop Ball Test).”

Section 2.3.1: To delete “where a visible crust exists, drop” and to add “drop”. To add “(0.56-0.60 ounce).” To delete “30 centimeters (one foot)” and to add “one-foot.” To delete “visible crust test method” and to add “Drop Ball Test.” To add “or project site”. To delete “which” and to add “that.” To delete “vacant lot.” To add “Determination Of Threshold Friction Velocity (TFV).”

Section 2.3.3: To add “Randomly select each representative disturbed surface for the Drop Ball Test by using a blind “over the shoulder” toss of a throwable object (e.g., a metal weight with survey tape attached). Using the point of fall as the lower left-hand corner, measure a one-foot square area.” To delete “a survey area that measures 1 foot by 1 foot and that represents a random portion of the overall disturbed conditions of the site” and to add “the one-foot by one-foot square survey area, using a consistent pattern across the survey area.” To delete “Visible Crust Determination” and to add “Drop Ball Test.”

Section 2.3.4: To delete “visible crust test” and to add “Drop Ball Test.” To delete “random.” To add “using the random selection method set forth in subsection 2.3.3 of this appendix.”

Section 3: To change heading “Time Average Methods Of Visual Opacity Determination Of Emissions From Dust Generating Operations” to “Visual Opacity Determination Of Emissions From Dust Generating Operations.”

Section 3.1: To delete “A time average regulation is any regulation that requires averaging visible emission data to determine the opacity of visible emissions over a specific time period.”

Section 3.3.1: To delete “Procedures For Emissions From Stationary Sources. These procedures are not applicable to this section.”

Re-Numbered Section 3.3.1(f): To delete “with the opacity standard described in Rule 310 of these rules.”

Re-Numbered Section 3.3.2(g): To delete “with the opacity standard described in Rule 310 of these rules.”

Section 4: To add heading “Visual Opacity Determination Of Emissions From Livestock Activities-Corrals, Pens, And Arenas.”

Section 4.1: To add “Applicability. This method is applicable for the determination of opacity of fugitive dust plumes from livestock activities-corrals, pens, and arenas.”

Section 4.2: To add “Principle. The opacity of emissions from livestock activities-corrals, pens, and arenas is determined visually by an observer qualified according to Section 3.4 of this appendix.”

Section 4.3: To add “Procedures. An observer qualified, in accordance with Section 3.4 of this appendix, shall use the following procedures for visually determining the opacity of emissions:”

Section 4.3.1: To add: “Position. Stand at a position at least 5 meters from the livestock activities-corrals, pens, and arenas in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Consistent as much as possible with maintaining the above requirements, make opacity observations from a position such that the line of sight is approximately perpendicular to the plume and wind direction. As much as possible, if multiple plumes are involved, do not include more than one plume in the line of sight at one time.”

Section 4.3.2: To add “Field Records. Record the name of the site, method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the livestock activity-corral, pens, and arenas. Also, record the time, estimated distance to the livestock activity-corral, pens, and arenas location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), observer's position relative to the livestock activity-corral, pens, and arenas, and color of the plume and type of background on the visible emission observation from when opacity readings are initiated and completed.”

Section 4.3.3: To add “Observations. Make opacity observations, to the extent possible, using a contrasting background. For storage piles, make opacity observations approximately 1 meter above the surface from which the plume is generated. The initial observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume, but instead observe the plume momentarily at 15-second intervals.”

Section 4.3.4: To add “Recording Observations. Record the opacity observations to the nearest 5% every 15 seconds on an observational record sheet. If a multiple plume exists at the time of an observation, do not record an opacity reading. Mark an “x” for that reading. If the livestock activity-corral, pens, and arenas ceases operating, mark an “x” for the 15-second interval reading. Readings identified as “x” shall be considered interrupted readings.”

Section 4.3.5: To add “Data Reduction. Within any 60-minute period, count at least three minutes that are greater than 20% opacity. If at least 13 readings are greater than 20% opacity, the livestock activity-corral, pens, and arenas is not in compliance. Readings immediately preceding and following interrupted readings shall be deemed consecutive and in no case shall two sets overlap, resulting in multiple violations.”

**6. Demonstration of compliance with A.R.S. § 49-112:**

Under A.R.S. § 49-479(C), a county may not adopt a rule or ordinance that is more stringent than the rules adopted by the Director of the Arizona Department of Environmental Quality (ADEQ) for similar sources unless it demonstrates compliance with the requirements of A.R.S. § 49-112.

**A.R.S. § 49-112 (A)**

When authorized by law, a county may adopt a rule, ordinance, or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all the following conditions are met:

1. The rule, ordinance or other regulation is necessary to address a peculiar local condition;
2. There is credible evidence that the rule, ordinance or other regulation is either:

- (a) Necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible
- (b) Required under a federal statute or regulation, or authorized pursuant to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule, ordinance or other regulation is equivalent to federal statutes or regulations.

The County is proposing to revise Rules 200, 310, 310.01 and Appendix C in order to address a peculiar local condition: EPA's finding that the Phoenix Nonattainment Area did not attain the 24-hour PM<sub>10</sub> standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007). The Phoenix Nonattainment Area is the only nonattainment area designated serious for PM<sub>10</sub> in Arizona. Consequently stronger regulations must be adopted in this area to address a serious health threat. Under Section 189(d) of the CAA, serious PM<sub>10</sub> nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, "plan revisions which provide for attainment of the PM<sub>10</sub> air quality standard and, from the date of such submission until attainment, for an annual reduction in PM<sub>10</sub> or PM<sub>10</sub> precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area." In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for PM<sub>10</sub> by December 31, 2007. The Phoenix Nonattainment Area is one of three areas in the entire country for which EPA has issued a finding that Section 189(d) has been triggered. Because of this, the revision complies with A.R.S. § 49-112 (A)(1) and A.R.S. § 49-112 (A)(2).

In addition, several of the proposed revisions are required to by A.R.S. § 49-474.01(A)(5, 6 and 11), 49-474.05 and 49-474.06 recently enacted in Senate Bill 1552. Therefore, a demonstration of compliance with A.R.S. § 49-112 as required by the County's general grant of rulemaking and ordinance authority in A.R.S. § 49-479 does not apply to those proposed rule provisions.

**7. A reference to any study relevant to the rule that the agency reviewed and either proposes to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:**

ADEQ, 2004. "Summary of economic, small business, and consumer impact". Contained in: Notice of Final Rulemaking, Maricopa County Rule 325: Brick and Structural Clay Products (BSCP) Manufacturing. Arizona Administrative Register, Vol. 11, Issue 37, Sep. 9, 2005.

ADHS, 2002. Arizona Department of Health Services, Asthma Control Program, Office of Nutrition and Chronic Disease Prevention Services, Phoenix, AZ: Oct. 2002.

American Lung Association, 2003. Trends in Chronic Bronchitis and Emphysema: Morbidity and Mortality. Epidemiology and Statistics Unit, Research and Scientific Affairs, Washington, DC: March 2003.

Sierra Research, Inc., 2007. Analysis of Particulate Control Measure Cost Effectiveness. Document prepared for Maricopa Association of Governments, Phoenix AZ: April 2007.

STAPPA/ALAPCO, 1996. Controlling Particulate Matter Under the Clean Air Act: A Menu of Options.

State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO), Washington, DC: July 1996.

U.S. EPA, 1999a. "Human Health Effects of Criteria Pollutants." Chapter 5 in The Benefits and Costs of the Clean Air Act 1990 to 2010, Report to Congress, Washington, DC: Nov.1999.

U.S. EPA, 1999b. "Economic Valuation of Human Health Effects." Chapter 6 in The Benefits and Costs of the Clean Air Act 1990 to 2010, Report to Congress, Washington, DC: Nov.1999.

**8. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision:**

Not applicable

**9. The preliminary summary of the economic, small business, and consumer impact:**

**9.1 Summary**

The Maricopa County Air Quality Department (MCAQD) is proposing revisions to Rule 200, Rule 310, Rule 310.01, and Appendix C. As required by A.R.S. § 41-1055, this economic, small business and consumer impact statement includes a discussion of the persons most likely to be impacted by the proposed rules, along with a cost-benefit analysis of the proposed rules' probable impact on MCAQD as the implementing agency and other public agencies, other political subdivisions of the state, and businesses affected by the proposed rulemaking. Where data are unavailable or highly uncertain, this statement discusses the limitations of the data, the methods used to develop qualitative and/or quantitative estimates, and attempts to characterize all probable impacts in qualitative terms.

To submit or request additional data on the information included in the economic, small business and consumer impact statement, please contact:

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## **9.2 Identification of the proposed rule making**

Each proposed change to these rules are described in detail under Item 5 above. While some changes are primarily administrative in nature, or designed to clarify existing County air quality rules, a subset of the proposed rule changes have been deemed to have potentially significant economic impacts, and are thus explicitly addressed in this Economic Impact Statement (EIS). These rule changes, and the relevant sections, include:

- Subcontractor Registration: Rule 200, § 306
- Unpaved Parking Lots: Rule 310, § 233 and Rule 310.01, § 230
- Visible Emissions Beyond Property Line:
  - Dust Generating Operations: Rule 310, § 303
  - Vehicle Use in Open Areas and Vacant Lots: Rule 310.01, § 302.4
  - Open Areas and Vacant Lots: Rule 310.01, § 302.5
  - Unpaved Parking Lots: Rule 310.01, § 302.6
  - Livestock Activities: Rule 310.01, § 302.8
- Cumulative Trackout Limit of 25 Feet:
  - Dust Generating Operations: Rule 310, § 306
  - Unpaved Parking Lots: Rule 310.01, § 302.6
  - Livestock Activities: Rule 310.01, § 302.8
- Dust Control Training Classes
  - Basic: Rule 310, § 309.1
  - Comprehensive: Rule 310, § 309.2
- Unpaved Roadways: Rule 310.01, § 302.7
- Trackout Control Devices:
  - Unpaved Parking Lots: Rule 310.01, § 302.6
  - Livestock Activities: Rule 310.01, § 302.8
- Control Measure Options for Easements and Rights of Way: Rule 310.01, § 302.10
- Visible Emission Limits for Livestock Activities: Rule 310.01, §302.8

## **9.3 Entities Expected to Be Affected by, Bear the Costs of, or Directly Benefit from the Proposed Rule Making**

Rule 200, § 306: Subcontractor Registration: It is estimated that up to 10,000 subcontractors would be subject to the proposed registration requirement. This figure includes those individuals and entities involved in performing ancillary services (including but not limited to: site foremen/supervisors, superintendents, truck drivers, initial grading, excavation, pouring concrete/footings, landscapers, utility installation, framers, drywall installation, electricians, swimming pool installers, et al.) that

perform work on a permitted site. In addition, MCAQD, as the implementing agency, will incur costs for the for the design, implementation, and administration of this program.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: With the elimination of the 5000-square-foot size criterion under these rules, all owners of unpaved parking lots of any size would be required to meet the requirements of the proposed rules.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: Owners of unpaved parking lots, open areas, vacant lots, and areas containing livestock activities will bear the costs of implementing required control measures required to prevent no visible emissions beyond the property line.

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: Owners of unpaved parking lots and areas containing livestock activities will bear the costs of monitoring, implementing immediate clean-up measures, and repairing/replacing control measures when trackout extends a cumulative distance of 25 linear feet or more.

Rule 310, §§ 309.1 and 309.2: Basic and Comprehensive Dust Control Training Classes: Those entities (individuals, corporations, or other organizations) currently required to obtain a dust control permit for earthmoving activities within Maricopa County are the groups that would be directly affected by the proposed introduction of a requirement to attend a basic or comprehensive dust control class. In addition, the implementing agency (MCAQD) will be responsible for the design, implementation, and administration of this program.

Rule 310.01, § 302.7: Unpaved Roadways: Owners of a non-traditional source of fugitive dust that involves unpaved roadways will bear the cost of conducting and documenting vehicle/traffic counts and ensuring that the unpaved roadways are used for less than 150 vehicle trips per day.

Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: Owners of unpaved parking lots and livestock activities will bear the cost of installing trackout control devices as an optional control measure to comply with the requirements of the proposed rules.

Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: Owners of easements, right-of-way, and access roads for utilities who choose to install locked gates as a control measure option will bear the costs associated with this option.

Rule 310.01, § 302.8: Visible Emission Limits for Livestock Activities: There should be no significant additional costs associated with the use of the aggregate number of 15-second observations which exceed the 20 percent opacity standard.

#### **9.4 Cost-benefit analysis**

##### **9.4.1 The probable costs and benefits to the implementing agency and other agencies directly affected by the implementation and enforcement of the proposed rule making**

Rule 200, § 306: Subcontractor Registration: The Maricopa County Air Quality Department will require four additional permit technicians to administer the subcontractor registration program. The direct annual costs associated with four additional permit technicians, as well as database maintenance personnel are estimated to be \$232,000. Annual costs of administering the program (including database development and maintenance, consumables, etc.) are estimated to be \$88,000. Total agency costs, including the allotment of overhead costs (for administrative, financial, cashiering personnel etc.) are estimated at \$444,500.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: The elimination of the 5000-square-foot size criterion will not have a direct impact on the MCAQD workload associated with inspections of unpaved parking lots. MCAQD committed to begin proactive inspections of unpaved parking lots because this was on the list of suggested county-implemented measures (MAG measure 31) to reduce PM<sub>10</sub> emissions. As a result, the Maricopa County Air Quality Department committed to conduct proactive and complaint-based inspections of existing parking lots located within unincorporated areas of Maricopa County. The department will hire four dust control vacant lot compliance inspectors to conduct proactive and complaint-based inspection of parking lots within the unincorporated areas. The annual costs associated with four additional dust control vacant lot inspectors are estimated to be \$255,000. One-time costs are estimated to be \$82,000. The Maricopa County Planning and Development Department also estimated that five drainage plan reviewers will be required to perform drainage reviews of parcels requiring dustproof paving. Annual costs associated with five additional drainage plan reviewer are estimated at an annual cost of \$378,000, and one-time costs are estimated to be \$93,000.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: A workload analysis was conducted by the MCAQD Planning and Analysis Division and it was determined that dust inspection labor time will not appreciably increase from the additional requirement that no visible emissions be allowed beyond the property line. Based on this analysis, the proposed rule change should yield no additional costs for MCAQD or any other agency.

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: Since the existing rules already contain immediate clean-up and control measure replacement/repair requirements for a cumulative trackout distance criterion of 50 feet, there should not be any cost increases to MCAQD or any other agency in association with the decrease in cumulative distance criteria to 25 feet.

Rule 310, § 309.1 and 309.2: Basic and Comprehensive Dust Control Training Classes: Maricopa County will hire four additional FTEs to coordinate and conduct dust control training. Annual costs associated with the four additional FTEs, database maintenance, training materials, and room rental are estimated to be \$382,000. One-time costs are estimated to be \$460,000 for database development, equipment costs, and training materials.

Rule 310.01, § 302.7: Unpaved Roadways: The current rules for unpaved roads already have provisions for required implementation of control measures based on the threshold criterion of 150 vehicles per day. The proposed rule reduces the unpaved road use criterion to 130 vehicles or more per day and requires formal, documented traffic counts. There should be minimal additional cost to Maricopa County to ensure that required traffic counts are conducted and properly documented for applicable unpaved roadways. Compliance with the proposed rule change can be assured by MCAQD during the normal dust inspection process. There should be no additional costs to any other agencies associated with this proposed rule change.

Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: The addition of a trackout control device as a possible control measure to ensure compliance with all visible emissions requirements under these rules should not yield increased cost for Maricopa County or any other agencies.

Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: The addition of the control measure option to install locked gates at entry points under this rule should not yield any increased costs to MCAQD or any other agencies.

Rule 310.01, § 302.8 Visible Emission Limits for Livestock Activities: There should be no additional cost to MCAQD or any other agency in association with the use of the aggregate number of 15-second observations which exceed the 20 percent opacity standard.

#### **9.4.2 Probable costs and benefits to other political subdivisions of the state**

It is assumed that the only potential impact on other agencies and other political subdivisions of the state would be in a limited number of instances where these entities are themselves permit holders for activities regulated under the proposed rule(s). As this occurs rather infrequently and these permits

comprise only a small fraction of all regulated activity under the proposed rule(s), it is anticipated that compliance with the proposed rules will impose no significant economic impact on any other agency or political subdivision of the state.

#### **9.4.3 Probable costs and benefits to businesses directly affected by the proposed rule making**

Rule 200, § 306: Subcontractor Registration: It is anticipated that the MCAQD subcontractor registration fee will be \$50. In addition, time to complete and submit the forms, and the associated recordkeeping will average 1.5 hours per registrant. Assuming an average wage of \$25/hour, the indirect costs of registering under this program would be \$37.50, for a total cost per registrant of \$87.50, and a total cost on businesses of all sizes impacted by this rule of \$875,000.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: With the elimination of the minimum size criterion under these rules, all owners of unpaved parking lots will bear the costs of implementing control measures to meet all new/revised requirements for unpaved parking lots under Rule 310 and Rule 310.01. Implementation of control measures to prohibit visible emissions beyond the property line and require immediate clean-up of trackout (including repairing or changing control measures to eliminate trackout) which extends a cumulative distance of 25 feet or more. The discussion of possible cost impacts of these proposed requirements for all unpaved parking lots is included below.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: Owners of unpaved parking lots, open areas and vacant lots, and livestock activities will be required to implement control measures to prevent visible emissions beyond the property line. Estimated costs will vary depending on the type and number of control measures required to prevent visible emissions beyond the property line. Annualized costs for implementing each possible control measure under each applicable section have not been fully developed at this time, however some preliminary cost data for control measures under the various rule sections are provided below.

Annualized costs for the installation of a rock barrier as a possible control measure under § 302.4 have been estimated to be approximately \$1,340 per vacant lot per year with installation costs estimated to be approximately \$11,400 for a three acre parcel of land (Sierra Research, 2007).

The possible range of annualized control measure costs for unpaved parking lots (based on a 0.1 acre parking lot) for reducing visible emissions under the proposed rule changes is expected to range from as low as \$100 per parking lot per year (assumes annual subgrade preparation and polymer emulsion application) for application of a dust palliative to as high as \$1,700 per parking lot per year for paving of the parking lot (based on total construction cost of \$15,400 and a useful life of 25 years).

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: The existing rules already contain immediate clean-up and control measure replacement/repair requirements for a trackout distance criterion of 50 feet. The revised rules include a clarification of the trackout distance criteria as being cumulative distance for all entrance and exit points. It is difficult to ascertain whether the reduction in the trackout distance criteria will affect a larger number of businesses or if the number of affected businesses will be the same. The cost associated with immediate clean-up is not expected to be prohibitive. Changes or additions to the control measures required to prevent trackout from extending a cumulative distance of 25 feet will fall into the range of costs discussed above for the proposed control measures necessary to prevent visible emissions beyond the property line.

Rule 310, § 309.1: Basic Dust Control Training Class: It is anticipated that the MCAQD fee for the basic dust control training class will be \$25. Each attendee will spend 4 hours in class, plus an estimated 1.5 hours for travel time, recordkeeping, etc. Assuming an average wage of \$24.23/hour, the indirect costs of registering under this program would be \$133.27, for a total cost per registrant of \$158.27, and a total cost on businesses of all sizes impacted by this rule of \$1,635,879.

Rule 310, § 309.1 Comprehensive Dust Control Training Class: It is anticipated that the MCAQD fee for the comprehensive dust control training class will be \$50. Each attendee will spend 8 hours in class, plus an estimated 1.5 hours for travel time, recordkeeping, etc. Assuming an average wage of \$29.27/hour, the indirect costs of registering under this program would be \$278.07, for a total cost per registrant of \$328.07, and a total cost on businesses of all sizes impacted by this rule of \$654,162.

Rule 310.01, § 302.7: Unpaved Roadways: The current rules for unpaved roads already have provisions for required implementation of control measures based on the threshold criterion of 150 vehicles per day. The proposed rule requires formal, documented traffic counts if an unpaved roadway is used for 150 vehicle trips or more per day.

Based on rough estimates obtained from the Maricopa County Department of Transportation (MCDOT), the estimated daily cost to conduct traffic counts will be approximately \$85 per road per count. It is assumed that conducting the traffic counts will require approximately 4 hours of total labor each day to both place and remove a bi-directional traffic counting cord. MCAQD welcomes interested stakeholders to provide relevant cost information where available.

Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: Owners of unpaved parking lots and livestock activities may have to bear the cost of installing trackout control devices as a required control measure. A trackout control device is one of several possible control measures that owners can

implement in order to comply with all requirements under §§ 302.6 and 302.8, but is not mandatory. Possible trackout control devices include: a gravel pad, a grizzly, a wheel wash system, or a paved area. It is expected that the cost of these trackout control devices will fall within the range of costs specified for possible control measures to be used to prevent visible emissions beyond the property line.

Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: Owners of easements, rights-of-way, and access roads for utilities will bear the cost of installing locked gates as a possible control measure under this rule. The annualized cost for installing an individual locked gate at an entry point is expected to be no more \$150 per year based on a total installation cost of \$1,500 and a useful life of at least 10 years.

Rule 310.01, § 302.8 Visible Emission Limits for Livestock Activities: There should be no additional cost associated with the use of the aggregate number of 15-second observations which exceed the 20 percent opacity standard.

## **9.5 Impact on private and public employment**

In cases where estimates of increased workloads and anticipated additional staff (FTE's) required for MCAQD to design, implement, and administer the proposed programs have been quantified individually in section 9.4.1 above. Since Maricopa County will be the implementing entity for these programs, no other significant impacts on public-sector employment of other agencies or political subdivisions of the state are anticipated.

The potential financial impacts on permit holders (businesses and individuals), on a per-case basis, and cumulative impacts on all permit holders, have been described and quantified, insofar as possible, in section 9.4.3 above.

Rule 200, § 306: Subcontractor Registration: Since a single business entity (corporation, LLC, individual, etc.) only requires a single registration, no impact on private employment is anticipated. The only direct effect on employment will be the four additional permit technicians anticipated to be required by implementation of this rule.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: As discussed above, all owners of unpaved parking lots will bear the costs of implementing control measures to meet proposed visibility and trackout requirements for unpaved parking lots. Very rough cost impacts were estimated and presented for the businesses directly affected by the proposed rule changes. The affected businesses may be forced to offset any additional costs incurred in order to comply with the proposed rules. Based

on the cost data presented above, MCAQD does not have sufficient data at this time to quantitatively evaluate potential employment impacts for businesses impacted by the proposed rule.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: Costs associated with achieving zero visible emissions beyond the property line through the use of one or more control measures may affect employment for the various owners/operators of the applicable fugitive dust source areas under the proposed rule changes. MCAQD does not have sufficient data at this time to quantitatively evaluate potential employment impacts for businesses directly affected by the proposed requirements.

Enforcing the visible emissions requirement beyond the property line will require some additional labor time for MCAQD dust inspectors, but the amount of labor time is not expected to dramatically affect the number of full-time employees required to complete the required dust inspection backlog. Employment at political subdivisions of the state are not expected to be affected by the proposed rulemaking.

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: Since the existing rules already contain immediate clean-up and control measure replacement/repair requirements for a trackout distance criterion of 50 feet, there should be no impact on employment associated with the proposed rule change.

Rule 310, §§ 309.1 and 309.2: Basic and Comprehensive Dust Control Training Classes: It is anticipated that MCAQD, as the implementing agency, will require approximately 2.2 additional FTE's to oversee and implement these programs. MCAQD is currently in the planning stages to certify other third-party entities to conduct these training programs, so some additional private-sector employment impact is likely, but this impact cannot yet be quantified precisely.

Rule 310.01, § 302.7: Unpaved Roadways: The current rules for unpaved roadways already have provisions for required implementation of control measures based on the threshold criterion of 150 vehicles per day. The proposed rules revisions require formal, documented traffic counts if unpaved roadways are used for 150 vehicle trips or more per day. Employment may be effected by businesses required to bear the cost of implementing a traffic counting system and documenting the traffic count results. Sufficient data does not exist to determine precise employment impacts based on the cost impacts presented above.

Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: As stated above, owners of unpaved parking lots and livestock activities may have to bear the cost of installing trackout control devices as a

required control measure to comply with the requirements of §§ 302.6 and 302.8. It is one of several possible control measure options, but is not a mandatory control option. The inclusion of a trackout control device as one of the possible control options should not have an effect on employment for affected businesses, implementing agencies, or political subdivisions of the state.

Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: Owners of easements, right-of-way, and access roads for utilities will bear the cost of installing locked gates as a possible control measure under this rule. This is only one of the possible control measures under this rule and is not cost prohibitive based on the data provided above. Costs to affected businesses will not be appreciably increased under this proposed addition to the rule; therefore, employment should not be impacted at any businesses directly impacted by this rule. Employment at agencies and political subdivisions of the state should not be impacted by this proposed rule change.

Rule 310.01, § 302.8 Visible Emission Limits for Livestock Activities: Since no additional costs will be incurred by any party as a result of the change in the opacity calculation methodology, employment will not be affected at any businesses, agencies or political subdivisions of the state.

## **9.6 Probable Impact of the Proposed Rule Making on Small Businesses**

For all proposed rule changes discussed in this analysis, a description of affected entities of all sizes is contained in Section 9.3 above. Due to constraints in time, available resources, and readily accessible current data, no reliable estimates on the separate impact on small businesses have yet been developed.

### **9.6.1 Alternative Methods Considered to Reduce Impact on Small Business**

Rule 200, § 306: Subcontractor Registration: No alternatives considered; the parameters of the proposed program have been developed to comply with A.R.S. 49-474.06.

Rule 310, §§ 309.1 and 309.2: Basic and Comprehensive Dust Control Training Programs: The proposed rulemaking imposes permitting and training requirements only on earthmoving projects greater than 0.1 acres (4,356 sq. ft.), as does the current version of the rule(s). Thus all projects below this minimum size threshold are exempt from the requirements of the proposed rule, limiting the financial and administrative burden for very small projects. As little or no relevant information is available, no attempt has been made to quantify the number of projects under this size threshold, or to estimate the increase in costs (additional inspectors and enforcement personnel) that would be required to apply the proposed rules to earthmoving activities of less than 0.1 acres. No other alternatives have been considered; the parameters of the proposed programs have been prepared to comply with A.R.S. 49-474.05.

### **9.6.2 Probable Cost and Benefit to Private Persons and Consumers**

All proposed changes to Rules 310 and 310.01 are designed to reduce particulate matter emissions with the ultimate goal of protecting the public health and welfare by attaining PM<sub>10</sub> and PM<sub>2.5</sub> National Ambient Air Quality Standards (NAAQS) throughout Maricopa County. A detailed description of the benefits for the public at large are excerpted from a cost analysis conducted by ADEQ (2004) and is provided below.

Improvement in air quality will generate cost-saving benefits by avoiding adverse-health effects, such as emergency room visits, hospital admissions, acute pediatric bronchitis, chronic adult bronchitis, acute respiratory symptom days, and even premature death. Potential benefits arising from a reduction PM and other pollutants emitted into the atmosphere can be inferred from data associated with the reduction of any airborne Particulate Matter (PM).

Some of health effects of human exposure to PM can be quantified while others cannot. Quantified adverse-health effects include: mortality, bronchitis (chronic and acute), new asthma cases, hospital admissions (respiratory and cardiovascular), emergency room visits for asthma, lower and upper respiratory illness, shortness of breath, respiratory symptoms, minor restricted activity days, days of work loss, moderate or worse asthma status of asthmatics. Unquantifiable adverse-health effects include: neonatal mortality, changes in pulmonary function, chronic respiratory diseases (other than chronic bronchitis), morphological changes, altered host defense mechanisms, cancer, and non-asthma respiratory emergency room visits (U.S. EPA, 1999a).

Epidemiological evidence shows that particulates have negative health impacts in a variety of ways, including: increased mortality and morbidity; more frequent hospital admissions, emergency room and clinician visits; increased need and demand for medication; and lost time from work and school. There is also increasing evidence that ambient air pollution can precipitate acute cardiac episodes, such as angina pectoris, cardiac arrhythmia, and myocardial infarction, although the majority of PM-related deaths are attributed to cardiovascular disease (The U.S. EPA's PM Health Effects Research Center Program, prepared by PM Centers Program staff, January 2002).

New evidence also links exposure to ambient PM concentrations to airway inflammation that in turn produces systemic effects, such as acute phase response with increased blood viscosity and coagulability, as well as increased risk of myocardial infarction in patients with coronary artery disease. Chronic effects of repeated airway inflammation may also cause airway remodeling, leading to irreversible lung disease. Individuals with asthma and chronic obstructive pulmonary disease may be at even higher risk from repeated exposure to particulates, according to the U.S. EPA's PM Health Effects Research Center Program.

The Health Effects Institute confirmed the existence of a link between particulate matter and human disease and death (premature mortality). The data revealed that long-term average mortality rates, even after accounting for the effects of other health effects, were 17-26% higher in cities with higher levels of airborne PM (Health Effects of Particulate Air Pollution: What Does The Science Say Hearing before the Committee on Science, House of Representatives, 107th Congress of the U.S., second session, May 8, 2002). Data further reveal that every 10-microgram increase in fine particulates per cubic meter produces a 6% increase in the risk of death by cardiopulmonary disease, and an 8% increase for lung cancer. Even very low concentrations of PM can increase the risk of early death, particularly in elderly populations with preexisting cardiopulmonary disease (STAPPA/ALAPCO, 1996).

In 2002 alone, chronic obstructive pulmonary disease cost the U.S. more than \$32 million, a sum not including costs attributable to asthma (American Lung Association, 2003). In Arizona, deaths attributable to asthma have equaled or exceeded national rates from 1991-1998. In 1998, some 316,200 Arizonans suffered breathing discomfort or asthma related stress (ADHS, 2002).

The MCAQD expects that a reduction in PM potentially will create commensurate cost-saving benefits to the general public by contributing towards reducing these emissions-related health problems. The proposed Maricopa County rulemaking will help improve the general quality of life for the citizens of Maricopa County, particularly those residing near sources that have reduced PM emissions and other air pollutants associated with the manufacturing processes.

Health benefits can be expressed as avoided cases of PM related-health effects and assigned a dollar value. EPA used an average estimate of value for each adverse-health effect of criteria air pollutants. Table 1 contains valuation estimates from the literature reported in dollars per case reduced. For example, the table shows a value of \$401,000 (in 2006 dollars) per case of chronic bronchitis avoided.

**Table 1. Monetized Adverse-Health Effects Avoided From Exposure to PM**

<b>Adverse Health Effect *</b>	<b>Per Case Valuation (1990 dollars)</b>	<b>Per Case Valuation (2006 dollars)</b>
Mortality	\$4,800,000	\$7,403,800
Chronic bronchitis	\$260,000	\$401,000
Hospital admissions for respiratory conditions	\$6,900	\$10,640
Hospital admissions for cardiovascular conditions	\$9,500	\$14,650
Emergency room visits for asthma	\$194	\$299
Acute Bronchitis	\$45	\$69
Asthma attack	\$32	\$49
Moderate or worse asthma day	\$32	\$49
Acute respiratory symptom	\$18	\$28

Upper respiratory symptom	\$19	\$29
Lower respiratory symptom	\$12	\$19
Shortness of breath, chest tightness, or wheeze	\$5	\$8
Work loss day	\$83	\$128
Mild restricted activity day	\$38	\$59

\* An individual's health status and age prior to exposure impacts his/her susceptibility. At risk persons include those who have suffered a stroke or have cardiovascular disease. Some age cohorts are more susceptible to air pollution than others, i.e., children and elderly.

Source: Derived from U.S. EPA, 1999b. According to EPA, cost values of these illnesses tend to underestimate the true value of avoiding these adverse-health effects. Mean estimates of willingness-to-pay (WTP) were used to derive values, unless WTP values were not available, in which case, the cost of treating or mitigating the effects was used. The value of an avoided asthma attack, for example, would be a person's WTP to avoid that symptom.

Mortality in Table 1 actually refers to statistical deaths, or inferred deaths due to premature mortality. A small decline in the risk for premature death will have a certain monetary value for individuals, and as such, they will be willing to pay a certain amount to avoid premature death. For instance, if PM emissions are reduced so that the mortality risk on the exposed population is decreased by one in one-hundred thousand, then among 100,000 persons, one less person will be expected to die prematurely. If the average willingness-to-pay (WTP) per person for such a risk reduction were \$75, the implied value of the statistical premature death avoided would be \$7.5 million.

## 9.7 Probable effect on county revenues

Some of the proposed rule changes would result in increased fee revenue to the Maricopa County Air Quality Department, which anticipates revising its fee schedule (under a separate rulemaking) in order to recoup the costs of designing, implementing and administering new programs contained within the present rulemaking. A list of the proposed programs, along with estimates of proposed user fees and overall revenue projections, is as follows:

<b>Program</b>	<b>Estimated Users</b>	<b>Fee/User</b>	<b>Estimated Annual Revenue</b>
Subcontractor Registration Program	10,000	\$50	\$500,000
Basic Dust Control Training Class	10,336	\$25	\$258,400
Comprehensive Dust Control Training Class	1,994	\$50	\$99,700

No other significant impact on state or County revenues from the present rulemaking is anticipated.

## 9.8 Alternative Methods Considered to Achieve the Purpose of the Proposed Rule Making

State law requires agencies to reduce the impact of a rule on small businesses by using certain methods, when they are legal and feasible, in meeting the statutory objectives of the rulemaking. Maricopa County considered each of the methods prescribed in Arizona Revised Statutes (A.R.S.) § 41-1035 and A.R.S. § 41-1055(B) for reducing the impact on small businesses. Methods that may be

used include the following: (1) exempt them from any or all rule requirements, (2) establish performance standards that would replace any design or operational standards, or (3) institute reduced compliance or reporting requirements, such as establishing less stringent requirements, consolidating or simplifying them or setting less stringent schedules or deadlines.

In some cases, no alternatives have been considered, as the proposed rule changes are designed to comply with state statute: e.g., the Subcontractor Registration Program (Rule 200, § 306), has been developed to comply with A.R.S. 49-474.06; and the Basic and Comprehensive Dust Control Training Classes (Rule 310, §§ 309.1 and 309.2) have been developed to comply with A.R.S. 49-474.05.

### **9.9 Data Availability and Limitations of Assumptions**

The present draft of this economic impact statement was developed in accordance with A.R.S. § 41-1055 to assess the potential economic impacts of the proposed changes to these rules. Sources of data and any assumptions used to develop these estimates have been included in the discussion of these analyses; and where data are lacking or uncertain, this has been noted wherever possible. Maricopa County Air Quality Department welcomes all interested parties to provide additional relevant information and documentation on the anticipated costs and benefits resulting from compliance with the proposed rule(s).

### **10. Name and address of department personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact statement:**

Name: Johanna M. Kuspert or Jo Crumbaker  
Maricopa County Air Quality Department  
Address: 1001 N. Central Ave, Suite 595  
Phoenix, AZ 85004  
Telephone: (602) 506-6710 or (602) 506-6705  
Fax: (602) 506-6179  
E-mail: jkuspert@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

### **11. The time, place and nature of the proceedings for the amendment of the rule:**

Written comments will be accepted if received between the date of this publication and December 11, 2007, 5:00 p.m. Written comments may be mailed or hand delivered to the Maricopa County Air Quality Department (see #4 above). Written comments received during the comment period will be considered formal comments to the proposed rules and will be responded to in the Notice Of Final Rulemaking.

An oral proceeding will be held on December 10, 2007 at 9:00 am at the Maricopa County Flood Control District, 2801 West Durango, Operations Building. All comments made at this oral proceeding will be considered formal comments and will be recorded and transcribed. All formal comments will be addressed in the Notice Of Final Rulemaking.

**12. Any other matters prescribed by the statute that are applicable to the specific agency or to any specific rule or class of rules:**

Not Applicable

**13. Incorporations by reference and their location in the rules:**

Incorporation By Reference	Location
ASTM Method C136-06	Rule 310, Section 223
	Rule 310, Section 504.1
ASTM Method D2216-05	Rule 310, Section 303.2(a)(1)(a)(iii)
	Rule 310, Section 305.5(b)(2)
	Rule 310, Section 305.11(b)(2)
	Rule 310, Section 504.2
ASTM Method D1557-02e1	Rule 310, Section 303.2(a)(1)(a)(iii)
	Rule 310, Section 305.5(b)(2)
	Rule 310, Section 305.11(b)(2)
	Rule 310, Section 504.3
Appendix C-Fugitive Dust Test Methods	Rule 310, Section 303.2(c)
	Rule 310, Section 304.3
	Rule 310, Section 304.4
	Rule 310, Section 501.1
	Rule 310, Section 501.2
	Rule 310.01, Section 501.1(b)
	Rule 310.01, Section 501.2
	Rule 310.01, Section 501.3
EPA Reference Method 203B	Rule 310.01, Section 501.1(a)

**14. The full text of the rule follows:**

**REGULATION II - PERMITS AND FEES**

**RULE 200**

**PERMIT REQUIREMENTS**

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**MARICOPA COUNTY  
AIR POLLUTION CONTROL REGULATIONS  
REGULATION II – PERMITS AND FEES  
RULE 200  
PERMIT REQUIREMENTS**

**SECTION 100 – GENERAL**

- 101 PURPOSE:** To provide an orderly procedure for the review of new sources of air pollution and for the modification and operation of existing sources through the issuance of permits.

**SECTION 200 – DEFINITIONS (NOT APPLICABLE)**

See Rule 100 (General Provisions And Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule.

**SECTION 300 – STANDARDS**

- 301 PERMITS REQUIRED:** Except as otherwise provided in these rules, no person shall commence construction of, operate, or make a modification to any source subject to regulation under ~~this rule~~ these rules, without first obtaining a permit or permit revision from the Control Officer. The Maricopa County Air Quality Department issues the following permits: Title V permits, Non-Title V permits, General permits, Dust Control permits, and Permits To Burn. The standards and/or requirements for these permits are described in Section 302 thru Section 305 of this rule. Additional standards, administrative requirements, and monitoring and records requirements for some of these permits are described in individual rules of these rules, as applicable/as specified in Section 302 thru Section 305 of this rule.
- 302 TITLE V PERMIT:** A Title V permit or, in the case of an existing permitted source, a permit revision shall be required for a person to commence construction of, to operate, or to modify any of the following:
- 302.1** Any major source as defined in Rule 100 of these rules.
  - 302.2** Any solid waste incineration unit required to obtain a permit pursuant to Section 129(e) of the Act.
  - 302.3** Any affected source as defined in Rule 100 of these rules.
  - 302.4** Any source in a source category designated by the Administrator pursuant to 40 CFR 70.3 and adopted by the Board of Supervisors by rule.
- 303 NON-TITLE V PERMIT:** Unless a Title V permit or a permit revision is required, a Non-Title V permit or permit revision shall be required for:
- 303.1** A person to make a modification to a source which would cause it to emit or to have the potential to emit quantities of regulated air pollutants greater than those specified in subsections 303.2 and 303.3(c) of this rule.

- 303.2** A person to commence construction of or to modify either of the following after rules adopted pursuant to A.R.S. § 49-480.04 are effective:
- a.** A source that emits or has the potential to emit with controls ten tons per year or more of a hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants designated by the Director pursuant to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules and not listed in Section 112(b) of the Act.
  - b.** A source that is within a category designated by the Director pursuant to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules and that emits or has the potential to emit with controls at least one ton, but less than ten tons per year of a hazardous air pollutant or at least 2.5 tons, but less than 25 tons per year of any combination of hazardous air pollutants.
- 303.3** A person to commence construction of, to operate, or to modify any of the following:
- a.** Any source other than a major source, including an area source, subject to a standard, limitation, or other requirement under Section 111 of the Act.
  - b.** Any source other than a major source, including an area source, subject to a standard or other requirement pursuant to Section 112 of the Act. However, a source is not required to obtain a permit solely because it is subject to regulation or requirements pursuant to Section 112(r) of the Act.
  - c.** Any source that emits or has the potential to emit, without control, regulated air pollutants, except the following sources to the extent which the described limits are not exceeded. However, any source that is exempt from obtaining a Non-Title V permit according to this section shall still comply with all other applicable requirements of these rules.
- (1) General Combustion Equipment:**
- (a)** Any source with an aggregated input capacity of less than 2,000,000 BTU per hour calculated by adding only those pieces of equipment over 300,000 BTU per hour with respect to fuel burning equipment fired with natural gas or liquefied petroleum gas.
  - (b)** Any oil fueled heating equipment with a maximum rated input capacity or an aggregated input capacity of less than 500,000 BTU (527,200 kilojoules) per hour.
- (2) Liquid Storage Tanks:**
- (a)** Stationary storage tanks with a capacity of 250 gallons (946 liters) or less used for storing organic liquids.
  - (b)** Stationary storage tanks used for storing organic liquids with a true vapor pressure of 1.5 psia (77.5 mm Hg) or less.
  - (c)** Pressure tanks and pressurized vessels used exclusively for the storage of liquefied gases.
- (3) Surface Coating And Printing Equipment:**

- (a) The aggregate of all surface coating operations of a source in which no coated product is heat cured and a combined total of one gallon per day or less of all coating materials and solvents are used.
  - (b) Application equipment for architectural surface coatings is used for commercial and residential applications.
  - (c) Any coating operation, which employs only hand-held aerosol cans, where VOC emissions do not exceed three pounds on any single day.
  - (d) Any printing operation which employs a combination of printing presses with a maximum of 500 square inches (3226 cm<sup>2</sup>) of impression area and a maximum of two units per printing press. For the purposes of this rule, "units" means the number of printing surfaces.
- (4) Solvent Cleaning Equipment:** Unheated, non-conveyorized, cleaning or coating equipment that does not include control enclosures:
- (a) With an open surface area of one square meter (10.8 square feet) or less and an internal volume of 350 liters (92.5 gallons) or less, having an organic solvent loss of three gallons per day or less, or
  - (b) Using only organic solvents with an initial boiling point of 302°F (150°C) or greater and having an organic solvent loss of three gallons per day or less, or
  - (c) Using materials with a VOC content of two percent or less by volume (20 cubic centimeters per liter).
- (5) Internal Combustion Equipment:**
- (a) Internal combustion engines with a manufacturer's maximum continuous rating of 50 horsepower or less or a maximum accumulative rating of 250 horsepower or less for engines used in the same process at one source.
  - (b) Internal combustion engines used solely as a source of unlimited standby power or emergency purposes and operated at or below 500 hours per year for routine testing and emergency standby operation for each internal combustion engine and provided such source demonstrates that the potential emissions at 500 hours of operation each of all internal combustion engines do not exceed 4,000 pounds of nitrogen oxides or carbon monoxide per year as evidenced by an installed hour meter or written usage records maintained by the operator; and
    - (i) Are only used for power when normal power line service fails; or
    - (ii) Are only used for the emergency pumping of water.
    - (iii) This exemption does not apply to internal combustion engines used as standby power due to a voluntary reduction in power by the power company.
  - (c) Engines used to propel motorized vehicles.

- (d) Gas turbines with a maximum heat input at ISO Standard Day Conditions of less than 3,000,000 BTU (3,162,000 kilojoules) per hour fired exclusively with natural gas and/or liquefied petroleum gas.
- (e) Portable internal combustion engines used on a temporary basis of no more than 30 days per calendar year at any one facility.

**(6) Food Equipment:**

- (a) Equipment, excluding boilers, used in eating establishments or other retail establishments for the purpose of preparing food for human consumption.
- (b) Bakeries:
  - (i) Mixers and blenders used in bakeries where the products are edible and intended for human consumption.
  - (ii) Ovens at bakeries whose total production is less than 10,000 pounds (4,535 kg) per operating day.

**(7) Miscellaneous:**

- (a) Diesel contaminated soil remediation projects, where no heat is applied.
- (b) Self-contained, enclosed blast and shot peen equipment where the total internal volume of the blast section is 50 cubic feet or less and where any venting is done via pollution control equipment.
- (c) Those laboratory acids which have both a pH above 1.5 and an aggregate daily emission to ambient air of vapor/mists from all such acids not exceeding three pounds on any single day.
- (d) Brazing or welding equipment.
- (e) Hand soldering equipment.
- (f) A source whose aggregate of all wood working equipment totals 50 horsepower or less.
- (g) Equipment used for buffing, carving, cutting, drilling, surface grinding, machining, planing, routing, sanding, sawing, shredding, or turning of ceramic artwork, precision parts, leather, metals, plastics, rubber, fiberboard, masonry, carbon, graphite or glass.
- (h) Refrigerant recovery equipment.
- (i) ~~Normal landscaping, building~~ Building maintenance or janitorial activities.
- (j) A source whose aggregate of all miscellaneous equipment, processes or production lines not otherwise identified in this section has total uncontrolled emissions of less than three pounds (1.4 kg) VOC or PM<sub>10</sub> during any day and less than 5.5 pounds (2.5 kg) of any other regulated air pollutant during any day.

- (k) A person to begin actual construction of a source subject to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules.
- (l) A person to make a modification to a source subject to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules.

**304 GENERAL PERMIT:** A General permit shall be required for a person to commence construction of, to operate, or to modify a source that is a member of a facility class for which a General permit has been developed pursuant to Rule 230 of these rules. The provisions of Rule 230 of these rules shall apply to General permits, except as otherwise provided in Rule 230 of these rules.

**305 ~~EARTH MOVING PERMIT~~ DUST CONTROL PERMIT:** ~~No person shall cause, commence, suffer, allow, or engage in any earth moving operation that disturbs a total surface area of 0.10 acre or more, without first obtaining a permit from the Control Officer. This requirement for a permit shall apply to all such activities conducted for commercial, industrial, or institutional purposes or conducted by any governmental entity. The property owner, lessee, developer, or general/prime contractor will be responsible for acquiring the permit. Permits shall not be required for earth moving operations for emergency repair of utilities, paved roads, unpaved roads, shoulders, and/or alleys. A Dust Control permit shall be required before a person, including but not limited to, the property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of Rule 310 of these rules, causes, commences, suffers, allows, or engages in any dust generating operation that disturbs a total surface area of 0.10 acre (4,356 square feet) or more. The provisions of Rule 310 of these rules shall apply to Dust Control permits, except as otherwise provided in Rule 310 of these rules.~~

~~305.1 Application: The applicant shall file an application, which includes an 8½" x 11" site map showing all linear dimensions, and shall submit a control plan as described in Rule 310 of these rules.~~

~~305.2 Annual Block Permit: Any person responsible for more than one earth moving operation consisting of routine operation, maintenance, and expansion or extension of utilities, paved roads, unpaved roads, road shoulders and/or alleys, and public right of ways at non-contiguous sites may submit one permit application covering multiple sites at which construction will commence within 12 months of permit issuance provided that:~~

- ~~a. The control plan as described in Rule 310 of these rules applies to all sites; and~~
- ~~b. The applicant submits a list of all sites, including the location and size of each site, with the application; and~~
- ~~c. For any project not listed in the application, the applicant notifies the Control Officer in writing at least three working days prior to commencing the earth moving operation. The notice shall include the site location, size, type of activity, and start date.~~

~~305.3 Action On Permit Application: The Control Officer shall take final action on an earth moving permit application within 14 calendar days of the filing of the completed application. The Control Officer shall notify the applicant in writing of his approval or denial.~~

- ~~305.4~~ **Permit Term:** Earth Moving permits issued pursuant to this rule shall be issued for a period of one year from the date of issuance.
- ~~305.5~~ **Permit Renewal:** Earth Moving permits shall be renewed annually should the project last longer than one year from the date the permit was issued. Applications for permit renewal shall be submitted to the Control Officer at least 14 calendar days prior to the expiration date of the original permit.

### **306 SUBCONTRACTOR REGISTRATION:**

- ~~306.1~~ A subcontractor who is engaged in dust generating operations at a site that is subject to a permit that is issued by a Control Officer and that requires control of PM<sub>10</sub> emissions from dust generating operations shall register with the Control Officer by submitting information in the manner prescribed by the Control Officer. The Control Officer shall issue a registration number after payment of the fee. The Control Officer may establish and assess a fee for the registration based on the total cost of processing the registration and issuance of a registration number.
- ~~306.2~~ The subcontractor shall have its registration number readily accessible on-site while conducting any dust generating operations. The subcontractor's registration number must be visible and readable by the public without having to be asked by the public (e.g., included/posted in a sign that is visible on the subcontractor's vehicle or equipment, included/posted on a sign that is visible in the window of the subcontractor's vehicle or equipment, or included/posted on a sign where the subcontractor is working on the site).

~~306~~**307 PERMIT TO BURN:** A permit is required for any open outdoor fire authorized under the exceptions in A.R.S. 49–501 or Rule 314 of these rules.

~~307~~**308 EXEMPTIONS:** Notwithstanding Sections 301, 302, and 303 of this rule, the following sources shall not require a permit, unless the source is a major source, or unless operation without a permit would result in a violation of the Act:

~~307.1~~**308.1** Sources subject to 40 CFR 60, Subpart AAA, Standards of Performance for New Residential Wood Heaters.

~~307.2~~**308.2** Sources and source categories that would be required to obtain a permit solely because they are subject to 40 CFR 61.145.

~~307.3~~**308.3** Agricultural equipment used in normal farm operations. Agricultural equipment used in normal farm operations, for the purposes of this rule, does not include equipment that would be classified as a source that would require a permit under Title V of the Act, or would be subject to a standard under 40 CFR parts 60 or 61.

~~308~~**309 STANDARDS FOR APPLICATIONS:** All permit applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision, which shall contain such terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of these rules. The issuance of any permit or permit revision shall not relieve the owner or operator from compliance with any Federal laws, Arizona laws, or these rules, nor does any other law, regulation or permit relieve the owner or operator from obtaining a permit or permit revision required under these rules.

~~308.1~~**309.1** Insignificant Activities:

- a. Rather than supplying detailed information, a Title V source may, in its permit application, list and generally group insignificant activities, which are defined in

Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix D-List Of Insignificant Activities of these rules.

- b. A Non-Title V source is not required to list nor to describe, in a permit application, insignificant activities, which are defined in Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix D-List Of Insignificant Activities of these rules. If a Non-Title V source's emissions are approaching an applicable requirement, including but not limited to best available control technology (BACT) requirements or major source status, then such Non-Title V source may be required by Maricopa County to include, in a permit application, a description of its insignificant activities and emissions calculations for such insignificant activities.
- c. An activity, process, or emissions unit that is not included in Appendix D-List Of Insignificant Activities of these rules may be considered an insignificant activity if it meets the definition of insignificant activity in Rule 100-General Provisions And Definitions of these rules and is approved by the Control Officer and the Administrator of the Environmental Protection Agency (EPA). A source may request approval for the classification of an activity as insignificant by including such a request in its permit application, along with justification that such activity meets the definition of insignificant activity in Rule 100-General Provisions And Definitions of these rules.
- d. An application may not omit information regarding insignificant activities that is needed to determine: (1) the applicability of or to impose any applicable requirement; (2) whether the source is in compliance with applicable requirements; or (3) the fee amount required under these rules. In such cases, emissions calculations or other necessary information shall be included in the application.

~~308.2~~**309.2**      **Trivial Activities:**

- a. A Title V source is not required, in a permit application, to list trivial activities, to describe trivial activities, nor to include the emissions from trivial activities, which are defined in Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix E-List Of Trivial Activities of these rules.
- b. A Non-Title V source is not required, in a permit application, to list trivial activities, to describe trivial activities, nor to include the emissions from trivial activities, which are defined in Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix E-List Of Trivial Activities of these rules.
- c. An activity that is not included in Appendix E-List Of Trivial Activities of these rules may be considered a trivial activity, if such activity meets the definition of trivial activity in Rule 100-General Provisions And Definitions of these rules.

~~309.310~~ **PERMIT CONDITIONS:** The Control Officer may impose any permit conditions that are necessary to ensure compliance with Federal laws, Arizona laws, or these rules.

~~309.1~~**310.1**      The Control Officer may require, as specified in ~~subsection 309.2 and subsection 309.3~~ **Section 310.2 and Section 310.3** of this rule, any source of regulated air pollutants to monitor, sample, or perform other studies to quantify emissions of regulated air pollutants or levels of air pollution that may reasonably be attributable to that source, if the Control Officer:

- a. Determines that monitoring, sampling, or other studies are necessary to determine the effects of the source on levels of air pollution; or

- b. Has reasonable cause to believe a violation of this rule, rules adopted pursuant to this rule, or a permit issued pursuant to this rule has been committed; or
- c. Determines that those studies or data are necessary to accomplish the purposes of this rule and that the monitoring, sampling, or other studies by the source are necessary in order to assess the impact of the source on the emission of regulated air contaminants.

**309.2310.2** The Control Officer may require a source of air contaminants, by permit or order, to perform monitoring, sampling, or other quantification of its emissions or air pollution that may reasonably be attributed to such a source. Before requiring such monitoring, sampling, or other quantification by permit or order, the Control Officer shall consider the relative cost and accuracy of any alternatives which may be reasonable under the circumstances such as emission factors, modeling, mass balance analyses, or emissions projections. The Control Officer may require such monitoring, sampling, or other quantification by permit or order if the Control Officer determines in writing that all of the following conditions are met:

- a. The actual or potential emissions of air pollution may adversely affect public health or the environment.
- b. An adequate scientific basis for the monitoring, sampling, or quantification method exists.
- c. The monitoring, sampling, or quantification method is technically feasible for the subject contaminant and the source.
- d. The monitoring, sampling, or quantification method is reasonably accurate.
- e. The cost of the method is reasonable in light of the use to be made of the data.

**309.3310.3** Orders issued or permit conditions imposed pursuant to this rule shall be appealable to the hearing board in the same manner as that prescribed for orders of abatement in A.R.S. § 49-489 and A.R.S. § 49-490 and for permit conditions in A.R.S. § 49-482.

**340311 PROHIBITION – PERMIT MODIFICATION:** A person shall not willfully deface, alter, forge, counterfeit, or falsify any permit issued under the provisions of these rules.

**341312 PERMIT POSTING REQUIRED:** Any person who has been granted a permit shall keep a complete permit clearly visible and accessible on the site where the equipment is installed. All equipment covered by the permit shall be listed in the permit by a serial number or other equipment identification symbol and shall be identified on a plant diagram.

**342313 TRANSITION FROM INSTALLATION AND OPERATING PERMIT PROGRAM TO UNITARY PERMIT PROGRAM:**

**342.4313.1 Sources With A Valid Installation, Operating, Or Conditional Permit:** A valid installation permit or operating permit issued by the Control Officer or a valid conditional permit issued by the hearing board before September 1, 1993, and the authority to operate as provided in Laws 1992, Chapter 299, Section 65, continue in effect until any of the following occurs:

- a. The Control Officer revokes an installation permit.

- b. The Control Officer issues or denies a Title V permit or a Non-Title V permit to the source.
- c. The hearing board revokes or modifies a conditional permit or the conditional permit expires. A source operating under a valid conditional permit may continue to operate in accordance with the terms and conditions of such permit after the expiration of the conditional permit if, at least 30 days prior to the expiration of the conditional permit, the source submits an application to the Control Officer for a Title V permit as described in ~~Section 312.2~~ Section 313.2 of this rule or for a Non-Title V permit as described in ~~Section 312.3~~ Section 313.3 of this rule.

**312.2313.2 Title V Sources With An Installation, Operating, Or Conditional Permit:**

Following November 29, 1996, the effective date of the Environmental Protection Agency's (EPA's) final interim approval of Maricopa County's Title V permit program, a source becomes subject to the requirements of the Title V permit program, when the source meets the applicability requirements as provided in this rule. Sources which hold a valid installation, operating, or conditional permit and require a Title V permit shall comply with the following provisions:

- a. The owner or operator of the source shall submit a permit application within 180 days of receipt of written notice from the Control Officer that an application is required or 12 months after the source becomes subject to the requirements of Title V of the Act and the permit requirements of these rules, whichever is earlier.
- b. Any source, which has not yet submitted a Title V permit application, that wishes to make any source change not requiring a permit, an administrative permit revision, a minor permit revision, or a significant permit revision shall comply with the applicable provisions of Rule 210 of these rules.

**312.3313.3 Non-Title V Sources With An Installation, Operating, Or Conditional**

**Permit:** Sources requiring a Non-Title V permit in existence on the date these rules become effective which hold a valid installation, operating, or conditional permit shall comply with the following provisions:

- a. All sources shall submit a permit application to the Control Officer within 90 days of receipt of written notice from the Control Officer that an application is required.
- b. Any source that wishes to make any source change not requiring a permit, an administrative permit revision, a minor permit revision, or a non-minor permit revision shall comply with the applicable provisions of Rule 220 of these rules.

**312.4313.4 Written Notice:** For purposes of this subsection, written notice shall include, but not be limited to, a written warning, notice of violation, or order issued by the Control Officer for constructing or operating an emission source without a permit. Such a source shall be considered to be in violation of these rules on each day of operation or each day during which construction continues, until a permit is granted.

**312.5313.5 Sources Not Under Permit:**

- a. All sources not in existence prior to the effective date of these rules shall first submit to the Control Officer an air quality permit application for the entire source and shall have been issued an air quality permit before commencing construction of such source.
- b. All sources in existence on the date these rules become effective and not holding a valid installation permit and/or a valid operating permit issued by the Control

Officer, which have not applied for a Non-Title V permit pursuant to these rules, shall submit to the Control Officer a permit application for the entire source.

- c. All sources in existence on the date these rules become effective and not holding a valid installation permit and/or a valid operating permit issued by the Control Officer, which have not applied for a Title V permit pursuant to these rules, shall submit to the Control Officer a Title V permit application no more than 12 months after becoming subject to Title V permit requirements.

**312.6313.6 Sources Which Currently Have An Installation Or Operating Permit:**

- a. For sources in existence on the date these rules become effective holding a valid installation permit and/or a valid operating permit issued by the Control Officer, the Control Officer may establish a phased schedule for acting on permit applications received within the first full year after the source becomes subject to obtaining a Title V or a Non-Title V permit under these rules. The schedule shall assure that at least one-third of such applications will be acted on annually over a period not to exceed three years after such effective date. Based on this schedule, the Control Officer shall review a completed application in accordance with the provisions of these rules and shall issue or deny the applicable permit within 18 months after the receipt of the completed application.
- b. Any application for an installation permit or an operating permit that is determined to be complete prior to the effective date of these rules but for which no permit has been issued shall be considered complete for the purposes of this section. In issuing a permit pursuant to such an application, the Control Officer shall include in the permit all elements addressed in the application and a schedule of compliance for submitting an application for a permit revision to address the elements required to be in the permit that were not included in the operating permit application or in the installation permit application. No later than six months after the effective date of these rules, the Control Officer shall take final action on an operating permit application or on an installation permit application determined to be complete prior to the effective date of these rules.

**313.314 ACCELERATED PERMITTING:**

**313.314.1** Notwithstanding any other provisions of these rules, the following qualify a source for a request-submittal for accelerated processing: an application for a Title V permit or for a Non-Title V permit; any permit revision; and any coverage under a general permit. Such a request-submittal shall be submitted in writing to the Control Officer at least 30 days in advance of filing the application and shall be accompanied by fees as described in Rule 280 of these rules.

**313.2314.2** When an applicant has requested accelerated permit processing, the Control Officer may, to the extent practicable, undertake to process the permit or permit revision in accordance with the following schedule:

- a. For applications for initial Title V and Non-Title V permits under Rules 210 and 220 of these rules, for significant permit revisions under Rule 210 of these rules, or for non-minor permit revisions under Rule 220 of these rules, final action on the permit or on the permit revision shall be taken within 90 days or after the Control Officer determines that the application is complete for a Non-Title V source and within 120 days after the Control Officer determines that the application is complete for a Title V source. Except for a new major source or a major modification subject to the requirements of Rule 240 of these rules, an application for a new permit, a significant permit revision, or a permit renewal shall be deemed to be complete

unless the Control Officer notifies the applicant by certified mail within 30 days of receipt of the application that the application is not complete.

- b. For applications for coverage under a general permit under Rule 230 of these rules, final action shall be taken within 30 days after receipt of the application.
- c. For minor permit revisions governed by Rule 210 of these rules and Rule 220 of these rules, the permit revision shall be issued within 60 days after receipt of the application.

~~313.3314.3~~ 314.3 Before issuing a permit or permit revision pursuant to this section, the applicant shall pay to the Control Officer all fees due as described in Rule 280 of these rules. Nothing in this section shall affect the public participation requirements of Rules 210 or 220 of these rules, or EPA and affected state review as required under Rule 210 of these rules.

## **SECTION 400 – ADMINISTRATIVE REQUIREMENTS**

### **401 APPROVAL OR DENIAL OF PERMIT OR PERMIT REVISION:**

- 401.1** The Control Officer shall deny a permit or revision if the applicant does not demonstrate that every such source for which a permit or permit revision is sought is so designed, controlled, or equipped with such air pollution control equipment that the source may be expected to operate without emitting or without causing to be emitted air contaminants in violation of the provisions of these rules.
- 401.2** Prior to acting on an application for a permit, the Control Officer may require the applicant to provide and to maintain such devices and procedures as are necessary for sampling and for testing purposes in order to secure information that will disclose the nature, extent, quantity, or degree of air contaminants discharged into the atmosphere from the source described in the application. In the event of such a requirement, the Control Officer shall notify the applicant in writing of the type and characteristics of such devices and procedures.
- 401.3** In acting upon an application for a permit renewal, if the Control Officer finds that such source has not been constructed in accordance with any prior permit or revision issued pursuant to A.R.S. § 49-480.01, the Control Officer shall require the permittee to obtain a permit revision or shall deny the permit renewal. The Control Officer shall not accept any further application for a permit for such source so constructed until the Control Officer finds that such source has been reconstructed in accordance with a prior permit or a revision, or until a revision to the permit has been obtained. The Control Officer may issue a permit with a compliance schedule for a source that is not in compliance with all applicable requirements at the time of permit issuance.
- 401.4** After a decision on a permit or on a permit revision, the Control Officer shall notify the applicant and any person who filed a comment on the permit pursuant to A.R.S. § 49-480 or on the permit revision pursuant to A.R.S. § 49-480.01 in writing of the decision, and if the permit is denied, the reasons for such denial. Service of this notification may be made in person or by first class mail. The Control Officer shall not accept a further application unless the applicant has corrected the circumstances giving rise to the objections as specified by the Control Officer as reasons for such denial.

### **402 PERMIT REOPENINGS; REVOCATION AND REISSUANCE; TERMINATION:**

#### **402.1 Reopening For Cause:**

- a. Each issued permit shall include provisions specifying the conditions under which the permit will be reopened prior to the expiration of the permit. A permit shall be reopened and revised under any of the following circumstances:
  - (1) Additional applicable requirements under the Act become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to Section 403.2 of this rule. Any permit revision required pursuant to this rule shall comply with Section 403 of this rule for a permit renewal and shall reset the five year permit term.
  - (2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Title V permit.
  - (3) The Control Officer or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  - (4) The Control Officer or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- b. Proceedings to reopen and issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Section 402.1a(1) of this rule, affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as is practicable.
- c. Action to reopen a permit under this section shall not be initiated before a notice of such intent is provided to the source by the Control Officer at least 30 days in advance of the date that the permit is to be reopened, except that the Control Officer may provide a shorter time period in the case of an emergency.
- d. When a permit is reopened and revised pursuant to this rule, the Control Officer may make appropriate revisions to the permit shield established pursuant to Rule 210 of these rules.

#### **402.2 Reopening For Cause By The Administrator:**

- a. If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit pursuant to Section 402.1 of this rule, the Administrator may notify the Control Officer and the permittee of such finding in writing. Within ten days of receipt of notice from the Administrator that cause exists to reopen a Title V permit, the Control Officer shall notify the source.
- b. Within 90 days of receipt of notice from the Administrator that cause exists to reopen a permit, the Control Officer shall forward to the Administrator a proposed determination of termination, modification, or revocation and reissuance of the permit. The Control Officer may request a 90 day extension of this limit if it is necessary to request a new or revised permit application or additional information from the applicant for, or holder of, a Title V permit.

- c. The Control Officer shall have 90 days from receipt of an objection by the Administrator to attempt to resolve the objection.

#### **403 PERMIT RENEWAL AND EXPIRATION:**

- 403.1** Prior to renewing a permit issued under these rules, the Control Officer shall provide notice in the same manner and form as provided in Rule 210 of these rules.
- 403.2** The Control Officer shall not renew a permit issued under these rules unless the permittee applies for a permit renewal prior to the expiration of a permit in the manner required by Rule 210 of these rules. If a timely and complete application for a permit renewal is submitted, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied. Any testing that is required for a renewal shall be completed before the proposed permit renewal is issued by the Control Officer.
- 403.3** The Control Officer shall publish notice of a permit renewal decision in the same manner as that provided in Rule 210 of these rules for a Title V permit and as that provided in Rule 220 of these rules for a Non-Title V permit.

#### **404 PERMIT TRANSFERS:**

- 404.1** Except as provided in A.R.S. § 49-429 and Section 404.2 of this rule, a Title V permit, a Non-Title V permit, or a General permit may be transferred to another person. Before the proposed transfer, the person who holds a valid Non-Title V permit or a valid General permit shall comply with the administrative permit revision procedures pursuant to Rule 220, Section 405.1 of these rules. At least 30 days before the proposed transfer, the person who holds a valid Title V permit shall give notice to the Control Officer in writing and shall comply with the administrative permit amendment procedures pursuant to Rule 210, Section 404 of these rules. Permit transfer notice shall contain the following:
  - a. The permit number and expiration date.
  - b. The name, address and telephone number of the current permit holder.
  - c. The name, address and telephone number of the person to receive the permit.
  - d. The name and title of the individual within the organization who is accepting responsibility for the permit along with a signed statement by that person indicating such acceptance.
  - e. A description of the equipment to be transferred.
  - f. A written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee.
  - g. Provisions for the payment of any fees pursuant to Rule 280 of these rules that will be due and payable before the effective date of transfer.
  - h. Sufficient information about the source's technical and financial capabilities of operating the source to allow the Control Officer to make the decision in Section 404.2 of this rule including:
    - (1) The qualifications of each person principally responsible for the operation of the source.

- (2) A statement by the chief financial officer of the new permittee that it is financially capable of operating the source in compliance with the law, and the information that provides the basis for that statement.
- (3) A brief description of any action for the enforcement of any federal or state law, rule or regulation, or any county, city or local government ordinance relating to the protection of the environment, instituted against any person employed by the new permittee and principally responsible for operating the source during the five years preceding the date of application. In lieu of this description, the new permittee may submit a copy of the certificate of disclosure or 10-K form required under A.R.S. § 49-109, or a statement that this information has been filed in compliance with A.R.S. § 49-109.

**404.2** The Control Officer shall deny the transfer if the Control Officer determines that the organization receiving the permit is not capable of operating the source in compliance with Article 3, Chapter 3, Title 49, Arizona Revised Statutes, the provisions of these rules, or the provisions of the permit. Notice of the denial stating the reason for the denial shall be sent to the original permit holder by certified mail stating the reason for the denial within ten working days of the Control Officer's receipt of the application. If the transfer is not denied within ten working days after receipt of the notice, the Control Officer shall approve such permit transfer.

**404.3** To appeal the transfer denial:

- a. Both the transferor and transferee shall petition the hearing board in writing for a public hearing; and
- b. The appeal process for a permit shall be followed.

**405 PERMITS CONTAINING THE TERMS AND CONDITIONS OF FEDERAL DELAYED COMPLIANCE ORDERS (DCO) OR CONSENT DECREES:**

**405.1** The terms and conditions of either a DCO or consent decree shall be incorporated into a permit through a permit revision. In the event the permit expires prior to the expiration of the DCO or consent decree, the DCO or consent decree shall be incorporated into any permit renewal.

**405.2** The owner or operator of a source subject to a DCO or consent decree shall submit to the Control Officer a quarterly report of the status of the source and construction progress and copies of any reports to the Administrator required under the order or decree. The Control Officer may require additional reporting requirements and conditions in permits issued under this rule.

**405.3** For the purpose of this rule, sources subject to a consent decree issued by a federal court shall meet the same requirements as those subject to a DCO.

**406 APPEAL:** Denial or revocation of a permit shall be stayed by the permittee's written petition for a hearing, filed in accordance with Rule 400 of these rules.

**407 AIR QUALITY IMPACT MODELS:**

**407.1** Where the Control Officer requires a person to perform air quality impact modeling, the modeling shall be performed in a manner consistent with 40 CFR 51, Appendix W, "Guideline On Air quality Models", as of July 1, 2004 (and no future amendments or additions), which shall be referred to hereinafter as "Guideline", and is adopted by reference.

- 407.2 Model Substitution:** Where the person can demonstrate that an air quality impact model specified in the guideline is inappropriate, the model may be modified or another model substituted. However, before such modification or substitution can occur, the Control Officer must make a written finding that:
- a. No model in the guideline is appropriate; or
  - b. The data base required for the appropriate model in the guideline is not available; and
  - c. A model proposed as a substitute or modification is likely to produce results equal or superior to those obtained by models in the guideline.
- 408 TESTING PROCEDURES:** Except as otherwise specified, the applicable testing procedures contained in the Arizona Testing Manual for Air Pollutant Emissions shall be used to determine compliance with standards or permit conditions established pursuant to these rules.
- 409 PERMIT FEES:** A fee shall be charged for each facility. No permit is valid until the applicable permit fee has been received and until the permit is issued by the Control Officer.
- 410 PORTABLE SOURCES:**
- 410.1** An owner or operator of a portable source which will operate for the duration of its permit solely in Maricopa County shall obtain a permit from the Control Officer for Maricopa County and is subject to Sections 410.2, 410.3, and 410.4 of this rule. A portable source with a current State of Arizona permit need not obtain a Maricopa County permit but is subject to Sections 410.3, 410.4, and 410.5 of this rule. Any permit for a portable source shall contain conditions that will assure compliance with all applicable requirements at all authorized locations.
- 410.2** An owner or operator of a portable source, which has a Maricopa County permit but proposes to operate outside of Maricopa County, shall obtain a permit from the Director. Upon issuance of a permit by the Director, the Control Officer shall terminate the Maricopa County permit for that source. If the owner or operator relocates the portable source in Maricopa County, the owner or operator shall notify the Control Officer as required by Section 410.4 of this rule of the relocation of the portable source. Whenever the owner or operator of a portable source operates a portable source in Maricopa County, such owner or operator shall comply with all regulatory requirements in these rules.
- 410.3** An owner of a portable source, which requires a permit under this rule, shall obtain the permit prior to renting or leasing said portable source. This permit shall be provided by the owner to the renter or lessee, and the renter or lessee shall be bound by the permit provisions. In the event a copy of the permit is not provided to the renter or lessee, both the owner and the renter or lessee shall be responsible for the operation of the portable source in compliance with the permit conditions and any violations thereof.
- 410.4** A portable source may be transported from one location to another within or across Maricopa County boundaries provided the owner or operator of such portable source notifies the Director and any Control Officer who has jurisdiction over the geographic area that includes the new location of the portable source by certified mail at least ten working days before the portable source is transported to the new location. The notification required under this rule shall include:

- a. A description of the portable source to be transported including the Maricopa County permit number or the State of Arizona permit number for such portable source;
- b. A description of the present location;
- c. A description of the location to which the portable source is to be transported, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;
- d. The date on which the portable source is to be moved;
- e. The date on which operation of the portable source will begin at the new location; and
- f. The duration of operation at the new location.

**410.5** An owner or operator of a portable source with a current State of Arizona permit that moves such portable source into Maricopa County shall notify the Control Officer that such portable source is being transported to a new location and shall include in such notification a copy of the State of Arizona permit and a copy of any conditions imposed by the State of Arizona permit. The source shall be subject to all regulatory requirements of these rules.

#### **411 PUBLIC RECORDS; CONFIDENTIALITY:**

**411.1** The Control Officer shall make all permits, including all elements required to be in the permit pursuant to Rule 210 of these rules and Rule 220 of these rules available to the public.

**411.2** A notice of confidentiality pursuant to A.R.S. § 49-487(c) shall:

- a. Precisely identify the information in the application documents, which is considered confidential.
- b. Contain sufficient supporting information to allow the Control Officer to evaluate whether such information satisfies the requirements related to trade secrets or, if applicable, how the information, if disclosed, could cause substantial harm to the person's competitive position.

**411.3** Within 30 days of receipt of a notice of confidentiality that complies with Section 411.2 of this rule, the Control Officer shall make a determination as to whether the information satisfies the requirements for trade secret or competitive position pursuant to A.R.S. § 49-487(C)(1) and so notify the applicant in writing. If the Control Officer agrees with the applicant that the information covered by the notice of confidentiality satisfies the statutory requirements, the Control Officer shall include a notice in the administrative record of the permit application that certain information has been considered confidential.

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**MARICOPA COUNTY**  
**AIR POLLUTION CONTROL REGULATIONS**  
**REGULATION III - CONTROL OF AIR CONTAMINANTS**  
**RULE 310**  
**FUGITIVE DUST FROM DUST GENERATING OPERATIONS**

**SECTION 100 - GENERAL**

- 101    PURPOSE:** To limit particulate matter ( $PM_{10}$ ) emissions into the ambient air from any property, operation or activity that may serve as a fugitive dust source. The effect of this rule shall be to minimize the amount of  $PM_{10}$  entrained into the ambient air as a result of the impact of human activities by requiring measures to prevent, reduce, or mitigate particulate matter emissions.
- 102    APPLICABILITY:** The provisions of this rule shall apply to all dust generating operations except for those dust generating operations listed in Section 103 of this rule.
- 103    EXEMPTIONS:** ~~The following are exempt from the requirements of this rule: normal farm cultural practices under Arizona Revised Statutes (A.R.S.) § 49-457 and § 49-504.4, and open areas, vacant lots, unpaved parking lots, and unpaved roadways that are not located at sources that require any permit under these rules.~~ The provisions of this rule shall not apply to the following activities:
- 103.1**    The provisions of this rule shall not apply to normal farm cultural practices according to Arizona Revised Statutes (A.R.S.) § 49-457 and A.R.S. § 49-504.4.
- 103.2**    The provisions of this rule shall not apply to the following non-traditional sources of fugitive dust that are located at sources that do not require any permit under these rules. These non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules.
- a.**    Vehicle use in open areas and vacant lots
- b.**    Open areas and vacant lots
- c.**    Unpaved parking lots
- d.**    Unpaved roadways (including alleys)
- e.**    Livestock activities
- f.**    Erosion-caused deposition of bulk materials onto paved surfaces
- g.**    Easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas)
- 103.3**    The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status.

- 103.4** An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 304 of this rule.
- 103.5** Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching performed to establish initial landscapes or to redesign existing landscapes.
- 103.6** Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of these rules.
- 103.7** An unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.

**SECTION 200 - DEFINITIONS:** For the purpose of this rule, the following definitions shall apply. See Rule 100-General Provisions And Definitions of these rules for definitions of terms that are used but not specifically defined in this rule.

**201** **AREA A** - As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows:

Township 8 North, Range 2 East and Range 3 East  
Township 7 North, Range 2 West through Range 5 East  
Township 6 North, Range 5 West through Range 6 East  
Township 5 North, Range 5 West through Range 7 East  
Township 4 North, Range 5 West through Range 8 East  
Township 3 North, Range 5 West through Range 8 East  
Township 2 North, Range 5 West through Range 8 East  
Township 1 North, Range 5 West through Range 7 East  
Township 1 South, Range 5 West through Range 7 East  
Township 2 South, Range 5 West through Range 7 East  
Township 3 South, Range 5 West through Range 1 East  
Township 4 South, Range 5 West through Range 1 East

**201202** **AREA ACCESSIBLE TO THE PUBLIC** – Any ~~retail~~ parking lot or public roadway that is ~~open~~ accessible to public travel primarily for purposes unrelated to the dust generating operation.

**202203** **BULK MATERIAL** - Any material, including, but not limited to, the following materials ~~earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than 2 inches in length or diameter (i.e., aggregate base course (ABC)), earth, soil, dirt, mud, demolition debris, cotton, trash, cinders, pumice, rock, saw dust, feeds, grains, fertilizers, fluff (from shredders), and dry concrete,~~ that are capable of producing fugitive dust.:

**203.1** Earth

**203.2** Rock

**203.3** Silt

**203.4** Sediment

**203.5** Sand

**203.6** Gravel

**203.7** Soil

**203.8** Fill

**203.9** Aggregate less than 2 inches in length or diameter (i.e., aggregate base course [ABC])

- 203.10 Dirt
- 203.11 Mud
- 203.12 Demolition debris
- 203.13 Cotton
- 203.14 Trash
- 203.15 Cinders
- 203.16 Pumice
- 203.17 Saw dust
- 203.18 Feeds
- 203.19 Grains
- 203.20 Fertilizers
- 203.21 Fluff from shredders
- 203.22 Dry concrete

**204.204 BULK MATERIAL HANDLING, STORAGE, AND/OR TRANSPORTING OPERATION -**

The use of equipment, haul trucks, and/or motor vehicles, including, but not limited to, for the following activities ~~the loading, unloading, conveying, transporting, piling, stacking, screening, grading, or moving of bulk materials~~, that are capable of producing fugitive dust-;

- 204.1 Loading
- 204.2 Unloading
- 204.3 Conveying
- 204.4 Transporting
- 204.5 Piling
- 204.6 Stacking
- 204.7 Screening
- 204.8 Grading
- 204.9 Moving bulk materials

**204.205 CONTROL MEASURE -** A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust. Control measures include, but are not limited to:

- ~~204.1~~205.1 Curbing;
- ~~204.2~~205.2 Paving;
- ~~204.3~~205.3 ~~Pre wetting~~ Pre-watering;
- ~~204.4~~205.4 Applying dust suppressants;
- ~~204.5~~205.5 Physically stabilizing with vegetation, gravel, recrushed/recycled asphalt or other forms of physical stabilization;
- ~~204.6~~205.6 Limiting, restricting, phasing and/or rerouting motor vehicle access;
- ~~204.7~~205.7 Reducing vehicle speeds and/or number of vehicle trips;
- ~~204.8~~205.8 Limiting use of off-road vehicles on open areas and vacant lots;
- ~~204.9~~205.9 Utilizing work practices and/or structural provisions to prevent wind and water erosion onto paved areas accessible to the public;
- ~~204.10~~205.10 Appropriately using dust control implements;
- ~~204.11~~205.11 Installing one or more grizzlies, gravel pads, and/or wash down pads adjacent to the entrance of a paved area accessible to the public to control carry-out and trackout;
- ~~204.12~~205.12 Keeping open-bodied haul trucks in good repair, so that spillage may not occur from beds, sidewalls, and tailgates; and
- ~~204.13~~205.13 Covering the cargo beds of haul trucks to minimize wind-blown dust emissions and spillage.

**205.206 DISTURBED SURFACE AREA –** A portion of the earth's surface ~~(or material placed thereupon) which~~ or material placed on the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, ~~thereby increasing the potential for the emission of fugitive dust.~~ if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. ~~For the purpose of~~

~~this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 301 and Section 302 of this rule.~~

**~~206~~207 DUST CONTROL IMPLEMENT** – A tool, machine, equipment, accessory, structure, enclosure, cover, material or supply, including an adequate readily available supply of water and its associated distribution/delivery system, used to control fugitive dust emissions.

**~~207~~208 DUST CONTROL PLAN** - A written plan describing all ~~fugitive dust~~ control measures to be implemented and maintained in order to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.

**~~208~~209 DUST GENERATING OPERATION** - Any activity capable of generating fugitive dust, including but not limited to, the following activities: land clearing, earthmoving, weed abatement by discing or blading, excavating, construction, demolition, bulk material handling, storage and/or transporting operations, vehicle use and movement, the operation of any outdoor equipment, or unpaved parking lots. For the purpose of this rule, landscape maintenance and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, landscape maintenance shall not include grading, trenching, or any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.

~~208.1~~**209.1** Land clearing, maintenance, and land cleanup using mechanized equipment

~~208.2~~**209.2** Earthmoving

~~208.3~~**209.3** Weed abatement by discing or blading

~~208.4~~**209.4** Excavating

~~208.5~~**209.5** Construction

~~208.6~~**209.6** Demolition

~~208.7~~**209.7** Bulk material handling (e.g., bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations)

~~208.8~~**209.8** Storage and/or transporting operations (e.g., open storage piles, bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations)

~~208.9~~**209.9** Operation of any outdoor equipment

~~208.10~~**209.10** Operation of motorized machinery

~~208.11~~**209.11** Establishing and/or using staging areas, parking areas, material storage areas, or access routes to and from a site

~~208.12~~**209.12** Establishing and/or using unpaved haul/access roads to, from, and within a site

~~208.13~~**209.13** Disturbed surface areas associated with a site

~~208.14~~**209.14** Installing initial landscapes using mechanized equipment

**~~209~~210 DUST SUPPRESSANT** – Water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer or any other dust palliative, which is not prohibited for ground surface application by the U.S. Environmental Protection Agency (EPA) or the Arizona Department of Environmental Quality (ADEQ) or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.

**~~210~~211 EARTHMOVING OPERATION** – The use of any equipment for an activity which may generate fugitive dust, such as but not limited to, the following activities: cutting and filling, grading, leveling, excavating, trenching, loading or unloading of bulk materials, demolishing, blasting, drilling, adding to or removing bulk materials from open storage piles, back-filling, soil mulching, landfill operations, or weed abatement by discing or blading.

**211.1** Cutting and filling

**211.2** Grading

**211.3** Leveling

**211.4** Excavating

- 211.5        Trenching
- 211.6        Loading or unloading of bulk materials
- 211.7        Demolishing
- 211.8        Blasting
- 211.9        Drilling
- 211.10       Adding bulk materials to or removing bulk materials from open storage piles
- 211.11       Back filling
- 211.12       Soil mulching
- 211.13       Landfill operations
- 211.14       Weed abatement by discing or blading
- 212**        **EMERGENCY** - A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- 213**        **EMERGENCY ACTIVITY** - Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality.
- 214**        **END OF WORK DAY** - The end of a working period that may include one or more work shifts but not later than 8 pm.
- ~~214~~**215**       **FREEBOARD** – The vertical distance between the top edge of a cargo container area and the highest point at which the bulk material contacts the sides, front, and back of a cargo container area.
- ~~214~~**216**       **FUGITIVE DUST** - The particulate matter not collected by a capture system, that is entrained in the ambient air, and is caused from human and/or natural activities, such as, but not limited to, the movement of soil, vehicles, equipment, blasting, and wind. ~~For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III Control Of Air Contaminants of these rules.~~
- ~~214~~**217**       **GRAVEL PAD** – A layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter, that is maintained at the point of intersection of a paved area accessible to the public and a work site entrance to dislodge mud, dirt, and/or debris from the tires of motor vehicles and/or haul trucks, prior to leaving the work site. A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater.
- ~~214~~**218**       **GRIZZLY** – A device (i.e., rails, pipes, or grates) used to dislodge mud, dirt, and/or debris from the tires and undercarriage of motor vehicles and/or haul trucks prior to leaving the work site.
- ~~214~~**219**       **HAUL TRUCK** - Any fully or partially open-bodied self-propelled vehicle including any non-motorized attachments, such as, but not limited to, trailers or other conveyances that are connected to or propelled by the actual motorized portion of the vehicle used for transporting bulk materials.
- ~~214~~**220**       **MOTOR VEHICLE** – A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle

Act, including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.

**217221 NORMAL FARM CULTURAL PRACTICE** – All activities by the owner, lessee, agent, independent contractor, and/or supplier conducted on any facility for the production of crops and/or nursery plants. Disturbances of the field surface caused by turning under stalks, tilling, leveling, planting, fertilizing, or harvesting are included in this definition.

**218222 OFF-ROAD VEHICLE** – Any self-propelled conveyance specifically designed for off-road use, including, but not limited to, off-road or all-terrain equipment, trucks, cars, motorcycles, motorbikes, or motorbuggies.

**219 OPEN AREAS AND VACANT LOTS** – ~~Any of the following described in Section 219.1 through Section 219.4 of this rule. For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one open area or vacant lot.~~

~~219.1 An unsubdivided or undeveloped tract of land adjoining a developed or partially developed residential, industrial, institutional, governmental, or commercial area.~~

~~219.2 A subdivided residential, industrial, institutional, governmental, or commercial lot that contains no approved or permitted buildings or structures of a temporary or permanent nature.~~

~~219.3 A partially developed residential, industrial, institutional, governmental, or commercial lot.~~

~~219.4 A tract of land, in the nonattainment area, adjoining agricultural property.~~

**223 OPEN STORAGE PILE** - Any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-06 or other equivalent method approved in writing by the Control Officer and the Administrator that the silt content is less than 5%.

**220224 OWNER AND/OR OPERATOR** – ~~The person responsible for obtaining an earthmoving permit under Rule 200, Section 305, including, but not limited to, the property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of this rule.~~

**221225 PAVE** – To apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt).

**226 PROPERTY LINE** - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

**222227 PUBLIC ROADWAYS** – Any roadways that are open to public travel.

**223228 ROUTINE** – Any dust generating operation which occurs more than 4 times per year or lasts 30 cumulative days or more per year.

- ~~224~~229 SILT**– Any aggregate material with a particle size less than 75 micrometers in diameter, which passes through a No. 200 Sieve.
- ~~225~~230 TRACKOUT/CARRYOUT** – Any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public.
- ~~226~~231 TRACKOUT CONTROL DEVICE** - A gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved area accessible to the public that controls or prevents vehicular trackout.
- ~~227~~232 UNPAVED HAUL/ACCESS ROAD** – Any on-site unpaved road used by commercial, industrial, institutional, and/or governmental traffic.
- ~~228~~233 UNPAVED PARKING LOT** – Any area ~~larger than 5,000 square feet~~ that is not paved and that is used for parking, maneuvering, material handling, or storing motor vehicles and equipment. An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities.
- ~~229~~234 UNPAVED ROAD** – Any road or equipment path that is not paved. ~~For the purpose of this rule, an unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.~~
- ~~230 URBAN OR SUBURBAN OPEN AREA~~** – ~~The definition of urban or suburban open area is included in Section 219 Definition Of Open Areas And Vacant Lots of this rule.~~
- ~~231 VACANT LOT~~** – ~~The definition of vacant lot is included in Section 219 Definition Of Open Areas And Vacant Lots of this rule.~~
- ~~232 VACANT PARCEL~~** – ~~The definition of vacant parcel is included in Section 219 Definition Of Open Areas And Vacant Lots of this rule.~~
- ~~233~~235 WIND-BLOWN DUST** - Visible emissions, from any disturbed surface area, that are generated by wind action alone.
- ~~234~~236 WIND EVENT** – When the 60-minute average wind speed is greater than 25 miles per hour.
- ~~235~~237 WORK SITE** – Any property upon which any dust generating operations ~~and/or earthmoving operations~~ occur.

## SECTION 300 – STANDARDS

- 301 GENERAL REQUIREMENTS FOR DUST GENERATING OPERATIONS:** Any person engaged in a dust generating operation subject to this rule shall be subject to the standards and/or requirements of this rule before, after, and while conducting such dust generating operation, including during weekends, after work hours, and on holidays. Failure to comply with any one of the following requirements shall constitute a violation.
- 301.1** Visible emissions requirements from dust generating operations described in Section 303 of this rule.
- 301.2** Stabilization requirements described in Section 304 of this rule.
- 301.3** Control measures described in Section 305 of this rule.

- 301.4 Trackout, carry-out, spillage, and/or erosion requirements described in Section 306 of this rule.
- 301.5 Soil moisture requirements described in Section 307 of this rule.
- 301.6 Dust control training class requirements described in Section 309 of this rule.
- 301.7 Dust control permit requirements described in Section 401 of this rule.
- 301.8 Dust Control Plan requirements described in Section 402 of this rule.
- 301.9 Monitoring and recordkeeping requirements described in Section 500 of this rule.
- 301.10 Any other requirements of this rule.

**302 PERMIT REQUIREMENTS FOR DUST GENERATING OPERATIONS:**

- 302.1 No person shall commence construction of, operate, or make a modification to any dust generating operation when such dust generating operations disturb a total surface area of 0.10 acre (4,356 square feet) or more without first obtaining a permit or permit revision from the Control Officer.
- 302.2 No person shall commence construction of, operate, or make a modification to any dust generating operation that disturbs a total surface area of less than 0.10 acre (4,356 square feet) under common control that are either contiguous or separated only by a public or private roadway and that cumulatively equal or exceed 0.10 acre (4,356 square feet) in area without first obtaining a permit or permit revision from the Control Officer.
- 302.3 No person shall commence any routine dust generating operation at a site that has obtained or must obtain a Title V, Non-Title V, or General permit under Regulation II-Permits And Fees of these rules without first submitting to the Control Officer a Dust Control Plan.
- 302.4 The property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of this rule shall be responsible for obtaining a permit or permit revision from the Control Officer.
- 302.5 All permit applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision, which shall contain such terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of this rule.
- 302.6 The issuance of any permit or permit revision shall not relieve any person subject to the requirements of this rule from compliance with any Federal laws, Arizona laws, or these rules.
- 302.7 Any other law, regulation or permit shall not relieve any person from obtaining a permit or permit revision required under this rule.

**301303 VISIBLE EMISSIONS REQUIREMENTS FOR DUST GENERATING OPERATIONS:**

~~The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed 20% opacity as tested by methods described in Appendix C of these rules.~~

**303.1 Dust Generating Operation Opacity Limitation Requirement:** ~~The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed the limits listed in either one of the following:~~

- ~~a. The owner and/or operator of a dust generating operation shall not cause or allow visible fugitive dust emissions to exceed 20% opacity.~~
- ~~b. The owner and/or operator of a dust generating operation shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.~~

**303.2 Exemptions From Dust Generating Operation Opacity Limitation Requirement:**

~~301.1~~**a. Wind Event:** ~~Exceedances of the opacity limit described in Section 303.1(a) of this rule that occur due to a wind event shall constitute a violation of the opacity limit. However, it shall be an affirmative defense in an enforcement action if the owner and/or operator demonstrates all of the following conditions:~~

~~(1) All control measures required were followed and one or more of the following control measures in Tables 20 & 21 was were applied and maintained;~~

~~(a) For dust generating operations:~~

- ~~(i) Cease dust generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 miles per hour and if dust generating operations are ceased for the remainder of the work day, stabilize the area;~~
- ~~(ii) Apply water or other suitable dust suppressant at least twice per hour to dust generating operations in the PM<sub>10</sub> nonattainment area and at least once per hour to dust generating operations outside the PM<sub>10</sub> nonattainment area;~~
- ~~(iii) Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent method as approved by the Control Officer and the Administrator. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent method approved by the Control Officer and the Administrator, maintain at least 70% of the optimum soil moisture content; or~~
- ~~(iv) Implement Section 303.2(a)(1)(a)(ii) or Section 303.2(a)(1)(a)(iii) of this rule and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of wind-blown material leaving a site.~~

~~(b) For temporary disturbed surface areas, including but not limited to, after work hours, weekends, and holidays:~~

- ~~(i) Uniformly apply and maintain surface gravel or dust suppressants;~~

(ii) Apply water to all disturbed surface areas three times per day. If there is any evidence of wind-blown dust, increase watering frequency to a minimum of four times per day;

(iii) Apply water on open storage piles at least twice per hour to temporary disturbed surface areas in the PM<sub>10</sub> nonattainment area and at least once per hour to temporary disturbed surface areas outside the PM<sub>10</sub> nonattainment area; or

(iv) Cover open storage piles with tarps, plastic, or other material such that wind will not remove the covering(s).

(2) The 20% opacity exceedance Exceedances of the opacity limit described in Section 303.1(a) of this rule could not have been prevented by better application, implementation, operation, or maintenance of control measures;

(3) The owner and/or operator compiled and retained records, in accordance with Section 502-Recordkeeping of this rule; and

(4) The occurrence of a wind event on the day(s) in question is documented by records. The occurrence of a wind event must be determined by the nearest Maricopa County Environmental Services Department Air Quality Division Maricopa County Air Quality Department monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked.

~~301.2b.~~ **Emergency Maintenance Of Flood Control Channels And Water Retention Basins:** ~~No opacity limitation shall~~ The opacity limit described in Section 303.1(a) of this rule shall not apply to emergency maintenance of flood control channels and water retention basins, provided that control measures are implemented.

~~301.3c.~~ **Vehicle Test And Development Facilities And Operations:** ~~No opacity limitation shall~~ The opacity limit described in Section 303.1(a) of this rule shall not apply to vehicle test and development facilities and operations when dust is required to test and validate design integrity, product quality, and/or commercial acceptance, if such testing is not feasible within enclosed facilities. However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule.

#### **302.304 STABILIZATION REQUIREMENTS FOR DUST GENERATING OPERATIONS:**

~~302.1304.1~~ **Unpaved Parking Lot:** The owner and/or operator of any unpaved parking lot shall not allow visible fugitive dust emissions to exceed 20% opacity and either Section 304.1(a) or Section 304.1(b) of this rule:

- a. Shall not allow silt loading equal to or greater than 0.33 oz/ft<sup>2</sup>, or
- b. Shall not allow the silt content to exceed 8%.

~~302.2304.2~~ **Unpaved Haul/Access Road:**

- a. The owner and/or operator of any unpaved haul/access road (whether including at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall not allow visible fugitive dust emissions to exceed 20% opacity and either Section 304.2(a)(1) or Section 304.2(a)(2) of this rule:

- (1) Shall not allow silt loading equal to or greater than 0.33 oz/ft<sup>2</sup>; or

- (2) Shall not allow the silt content to exceed 6%.

- b. The owner and/or operator of any unpaved haul/access road (including at a work site that is under construction or a work site that is temporarily or permanently inactive) shall, as an alternative to meeting the stabilization requirements for an unpaved haul/access road in Section 304.2(a) of this rule, limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this ~~subsection~~ section of this rule, the owner and/or operator must include, in a Dust Control Plan, the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.

**~~302.33~~304.3 Open Area And Vacant Lot Or Disturbed Surface Area:** The owner and/or operator of ~~an open area and/or vacant lot or~~ any disturbed surface area on which no activity is occurring (including at a work site that is under construction or a work site that is temporarily or permanently inactive) shall meet at least ~~4~~ one of the standards described in ~~Sections 302.3(a) through 302.3(g)~~ Sections 304.3(a) through 304.3(g) below, as applicable. Should ~~a disturbed open area and/or vacant lot or~~ any disturbed surface area on which no activity is occurring contain more than one type of ~~disturbance~~ visibly distinguishable stabilization characteristics, soil, vegetation, or other characteristics, which are visibly distinguishable, the owner and/or operator shall test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, ~~according to the appropriate test methods in Appendix C of these rules, and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results in accordance with the appropriate test methods described in Section 501.2(c) of this rule and in Appendix C- Fugitive Dust Test Methods of these rules.~~ The owner and/or operator of such ~~inactive disturbed surface area~~ disturbed surface area on which no activity is occurring shall be considered in violation of this rule if the area is not maintained in a manner that meets at least ~~4~~ one of the standards listed below, as applicable.

- a. Maintain a ~~visible~~ soil crust;
- b. Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;
- c. Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
- d. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;
- e. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;

- f. Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
- g. Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator. ~~of the Environmental Protection Agency (EPA).~~

**302.4304.4 Vehicle Test And Development Facilities And Operations:** No stabilization requirement shall apply to vehicle test and development facilities and operations when dust is required to test and validate design integrity, product quality, and/or commercial acceptance, if such testing is not feasible within enclosed facilities. However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule.

**305 CONTROL MEASURES FOR DUST GENERATING OPERATIONS:** When engaged in a dust generating operation, the owner and/or operator shall install, maintain, and use control measures, as applicable. The owner and/or operator of a dust generating operation shall implement control measures before, after, and while conducting dust generating operations, including during weekends, after work hours, and on holidays. Control measures for specific dust generating operations are described in Section 305.1 through Section 305.12 of this rule.

**305.1 Off-Site Hauling:** The owner and/or operator of a dust generating operation that involves off-site hauling shall implement the following control measures:

- a. When cargo compartment is loaded:
  - (1) Load all haul trucks such that the freeboard is not less than three inches;
  - (2) Load all haul trucks such that at no time shall the highest point of the bulk material be higher than the highest point at which the bulk material contacts the sides, front, and back of a cargo container area;
  - (3) Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
  - (4) Cover cargo compartment with a tarp or other suitable closure.
- b. When cargo compartment is empty:
  - (1) Clean the interior of the cargo compartment; or
  - (2) Cover the cargo compartment with a tarp or other suitable closure.
- c. When off-site hauling, install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse the site.

**305.2 Bulk Material Hauling/Transporting When On-Site Hauling/Transporting Within The Boundaries Of The Work Site But Not Crossing A Paved Area Accessible To The Public:** The owner and/or operator of a dust generating operation that involves bulk material hauling/transporting when on-site hauling/transporting within the boundaries of

the work site but not crossing a paved area accessible to the public shall implement one of the following control measures:

- a. Limit vehicle speed to 15 miles per hour or less while traveling on the work site;
- b. Apply water to the top of the load; or
- c. Cover haul trucks with a tarp or other suitable closure.

**305.3 Bulk Material Hauling/Transporting When On-Site Hauling/Transporting Within The Boundaries Of The Work Site And Crossing And/Or Accessing A Paved Area Accessible To The Public:** The owner and/or operator of a dust generating operation that involves bulk material hauling/transporting when on-site hauling/transporting within the boundaries of the work site and crossing and/or accessing a paved area accessible to the public shall implement all of the following control measures:

- a. Load all haul trucks such that the freeboard is not less than three inches;
- b. Load all haul trucks such that at no time shall the highest point of the bulk material be higher than the highest point at which the bulk material contacts the sides, front, and back of a cargo container area;
- c. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- d. When crossing and/or accessing a paved area accessible to the public, install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse the site.

**305.4 Bulk Material Stacking, Loading, And Unloading Operations:** The owner and/or operator of a dust generating operation that involves bulk material stacking, loading, and unloading operations shall implement at least one of the following control measures:

- a. Spray material with water, as necessary, prior to stacking, loading, and unloading and/or while stacking, loading, and unloading; or
- b. Spray material with a dust suppressant other than water, as necessary, prior to stacking, loading, and unloading and/or while stacking, loading, and unloading.

**305.5 Open Storage Piles:** The owner and/or operator of a dust generating operation that involves an open storage pile shall implement the following control measures, as applicable:

- a. Prior to and/or while conducting stacking, loading, and unloading operations, implement one of the following control measures:
  - (1) Spray material with water, as necessary; or
  - (2) Spray material with a dust suppressant other than water, as necessary.
- b. When not conducting stacking, loading, and unloading operations, implement one of the following control measures:

- (1) Cover all open storage piles with a tarp, plastic, or other material to prevent wind from removing the covering(s)/such that the covering(s) will not be dislodged by wind; or
- (2) Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent methods approved by the Control Officer and the Administrator. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent methods approved by the Control Officer and the Administrator, maintain at least 70% of the optimum soil moisture content.
- (3) Maintain a soil crust; or
- (4) Implement the control measure described in Section 305.5(b)(2) or in Section 305.5(b)(3) of this rule and construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%.

**305.6** **Unpaved Staging Areas, Unpaved Parking Areas, And Unpaved Material Storage Areas:** The owner and/or operator of a dust generating operation that involves unpaved staging areas, unpaved parking areas, and unpaved material storage areas shall implement one or more of the following control measures:

- a. Apply water so that the surface is visibly moist;
- b. Pave;
- c. Apply and maintain gravel, recycled asphalt, or other suitable material;
- d. Apply and maintain a suitable dust suppressant other than water; or
- e. Limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this section, the owner and/or operator shall provide to the Control Officer the maximum number of vehicle trips on the staging areas, parking areas, and/or material storage areas each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.

**305.7** **Unpaved Haul/Access Roads:** The owner and/or operator of a dust generating operation that involves unpaved haul/access roads shall implement one or more of the following control measures:

- a. Apply water so that the surface is visibly moist;
- b. Pave;
- c. Apply and maintain gravel, recycled asphalt, or other suitable material;
- d. Apply and maintain a suitable dust suppressant other than water; or
- e. Limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this section of this rule, the owner

and/or operator shall provide to the Control Officer the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.

**305.8** **Weed Abatement By Discing Or Blading:** The owner and/or operator of a dust generating operation that involves weed abatement by discing or blading shall comply with all of the following control measures:

- a. Before weed abatement by discing or blading occurs, apply water;
- b. While weed abatement by discing or blading is occurring, apply water; and
- c. After weed abatement by discing or blading occurs, pave, apply gravel, apply water, apply a suitable dust suppressant other than water, or establish vegetative ground cover.

**305.9** **Blasting Operations:** The owner and/or operator of a dust generating operation that involves blasting operations shall implement all of the following control measures:

- a. In wind gusts above 25 miles per hour, discontinue/cease blasting; and
- b. Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.

**305.10** **Demolition Activities:** The owner and/or operator of a dust generating operation that involves demolition activities shall implement all of the following control measures:

- a. Apply water to demolition debris immediately following demolition activity; and
- b. Apply water to all disturbed soils surfaces to establish a crust and to prevent wind erosion.

**305.11** **Disturbed Surface Areas:** The owner and/or operator of a dust generating operation that involves disturbed surface areas shall implement the following control measures, as applicable:

- a. Before disturbed surface areas are created, implement one of the following control measures:
  - (1) Pre-water site to depth of cuts, allowing time for penetration; or
  - (2) Phase work to reduce the amount of disturbed surface areas at any one time.
- b. While disturbed surface areas are being created, implement one of the following control measures:
  - (1) Apply water or other suitable dust suppressant other than water;
  - (2) Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent method as approved by the Control Officer and the Administrator. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent method approved by the Control Officer and the Administrator, maintain at least 70% of the optimum soil moisture content; or

(3) Implement control measure described in Section 305.11(b)(1) or Section 305.11(b)(2) of this rule and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of windblown material leaving a site.

c. When the dust generating operation is finished for a period of 30 days or longer - for longer than temporary pauses that occur during a dust generating operation, the owner and/or operator shall implement one or more of the following control measures within ten days following the completion of such dust generating operation:

(1) Pave, apply gravel, or apply a suitable dust suppressant other than water;

(2) Establish vegetative ground cover in sufficient quantity;

(3) Implement control measures described in Section 305.11(c)(1) or Section 305.11(c)(2) of this rule and restrict vehicle access to the area;

(4) Apply water and prevent access by fences, ditches, vegetation, berms, or other suitable barrier or means sufficient to prevent trespass as approved by the Control Officer; or

(5) Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.

**305.12 Easements, Rights-Of-Way, And Access Roads For Utilities (Transmission Of Electricity, Natural Gas, Oil, Water, And Gas) Associated With Sources That Have A Non-Title V Permit, A Title V Permit, And/Or A General Permit Under These Rules:** The owner and/or operator of a dust generating operation that involves an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas ) associated with sources that have a Title V permit, a Non-Title V permit, and/or a General permit under these rules shall implement at least one of the following control measures:

a. Inside Area A, limit vehicle speed to 15 miles per hour or less and vehicle trips to no more than 20 per day per road;

b. Outside Area A, limit vehicle trips to no more than 20 per day per road; or

c. Implement control measures described in Section 305.7 of this rule.

**306 TRACKOUT, CARRY-OUT, SPILLAGE, AND/OR EROSION:** The owner and/or operator of a dust generating operation shall prevent and control trackout, carry-out, spillage, and/or erosion.

**306.1 Trackout Control Device:**

a. Criterion For Trackout Control Device: Install, maintain and use a suitable trackout control device that prevents and controls trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse the site at all exits onto paved areas accessible to the public from both of the following:

(1) All work sites with a disturbed surface area of two acres or larger, and

(2) All work sites where 100 cubic yards of bulk materials are hauled on-site and/or off-site per day.

**b. Control Measures:** Prevent trackout, carry-out, spillage, and/or erosion by implementing one of the following control measures:

(1) At all exits onto paved areas accessible to the public, install a wheel wash system;

(2) At all exits onto paved areas accessible to the public, install a gravel pad to comply with Section 216 of this rule;

(3) At all exits onto paved areas accessible to the public, install a grizzly or rumble grate that consists of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the grizzly or rumble grate; or

(4) Pave starting from the point of intersection with a paved area accessible to the public and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.

### **306.2 Clean Up Of Trackout:**

**a. Criterion For Clean Up Of Trackout:** Clean up, trackout, carry-out, spillage, and/or erosion from paved areas accessible to the public including curbs, gutters, and sidewalks, on the following time-schedule:

(1) Immediately, when trackout, carry-out, or spillage extends a cumulative distance of 25 linear feet or more; and

(2) At the end of the workday, for all other trackout, carry-out, spillage, and/or erosion.

**b. Control Measures:**

(1) Operate a street sweeper or wet broom with sufficient water, including but not limited to kick broom, steel bristle broom, Teflon broom, vacuum, at the speed recommended by the manufacturer and at the frequency(ies) described in this section of this rule; or

(2) Manually sweep-up deposits to comply with this section of this rule.

**307 SOIL MOISTURE:** If water is the chosen control measure in an approved Dust Control Plan, the owner and/or operator of a dust generating operation shall operate a water application system on-site (e.g., water truck, water hose) while conducting any earthmoving operations on disturbed surface areas 1 acre or larger, unless a soil crust is maintained or the soil is sufficiently damp to prevent loose grains of soil from becoming dislodged.

**308 PROJECT INFORMATION SIGN FOR DUST GENERATING OPERATIONS:** For all sites with a Dust Control permit that are five acres or larger, except for routine maintenance and repair done under a Dust Control permit-Block permit, the owner and/or operator shall erect and maintain a project information sign at the main entrance such that members of the public can easily view and read the sign at all times. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information:

- 308.1** Project name and permittee's name;
- 308.2** Current Dust Control permit number and expiration date;
- 308.3** Name and local phone number of person(s) responsible for dust control matters;
- 308.4** Text stating: "Dust complaints? Call Maricopa County Air Quality Department - (Insert the accurate Maricopa County Air Quality Department complaint line telephone number)."

**309 DUST CONTROL TRAINING CLASSES FOR DUST GENERATING OPERATIONS:**

**309.1 Basic Dust Control Training Class:**

- a.** At least once every three years, the site superintendent or other designated on-site representative of the permit holder, if present at a site that has more than one acre of disturbed surface area that is subject to a permit issued by the Control Officer requiring control of PM<sub>10</sub> emissions from dust generating operation, shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.
- b.** At least once every three years, water truck and water-pull drivers shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.
- c.** All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Basic Dust Control Training Class, if the training that was completed was conducted or approved by the Control Officer. Completion of the Comprehensive Dust Control Training Class, as required in Section 309.2 of this rule, shall satisfy the requirement of this section of this rule.

**309.2 Comprehensive Dust Control Training Class:**

- a.** At least once every three years, the Dust Control Coordinator, who meets the requirements of Section 310 of this rule, shall successfully complete the Comprehensive Dust Control Training Class conducted or approved by the Control Officer.
- b.** All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Comprehensive Dust Control Training Class, if the training that was completed was conducted or approved by the Control Officer.

**310 DUST CONTROL COORDINATOR FOR DUST GENERATING OPERATIONS:**

- 310.1** The permittee for any site of five acres or more of disturbed surface area subject to a permit issued by the Control Officer requiring control of PM<sub>10</sub> emissions from dust generating operations shall have on-site at least one Dust Control Coordinator trained in accordance with Section 309.2 of this rule at all times during primary dust generating operations related to the purposes for which the Dust Control permit was obtained.
- 310.2** The Dust Control Coordinator shall have full authority to ensure that dust control measures are implemented on-site, including conducting inspections, deployment of dust

suppression resources, and modifications or shut-down of activities as needed to control dust.

**310.3** The Dust Control Coordinator shall be responsible for managing dust prevention and dust control on the site.

**310.4** At least once every three years, the Dust Control Coordinator shall successfully complete a Comprehensive Dust Control Training Class conducted or approved by the Control Officer.

**310.5** The Dust Control Coordinator shall have a valid dust training certification identification card readily accessible on-site while acting as a Dust Control Coordinator.

**310.6** The requirement for a Dust Control Coordinator shall lapse when all of the following actions/events/procedures occur:

- a. The area of disturbed surface area becomes less than five acres;
- b. The previously disturbed surface areas have been stabilized in accordance with/in compliance with the standards and/or requirements of this rule; and
- c. The Dust Control permit holder provides notice to the Control Officer of acreage stabilization.

**310.7** The permittee, who is required to obtain a single permit for multiple non-contiguous sites that is issued by the Control Officer and that requires control of PM<sub>10</sub> emissions from dust generating operations, shall have on sites with greater than one acre of disturbed surface area at least one individual who is designated by the permittee as a Dust Control Coordinator trained in accordance with Section 309.1 of this rule.

- a. The Dust Control Coordinator shall be present on-site at all times during primary dust generating activities that are related to the purposes for which the permit was obtained.
- b. The requirements of Section 310.7 of this rule shall not apply to the permittee subject to Section 309.1 of this rule.

### **303 ~~DUST CONTROL PLAN REQUIRED:~~**

**303.1** ~~The owner and/or operator of a dust generating operation shall submit to the Control Officer a Dust Control Plan with any permit applications that involve earthmoving operations with a disturbed surface area that equals or exceeds 0.10 acre, including both of the following situations:~~

- ~~a. When submitting an application for an earthmoving permit involving earthmoving operations that would equal or exceed 0.10 acre, and~~
- ~~b. Before commencing any routine dust generating operation at a site that has obtained or must obtain a Title V, Non Title V, or general permit under Regulation II Permits And Fees of these rules.~~

~~Compliance with this section does not affect an owner and/or operator's responsibility to comply with the other standards of this rule. The Dust Control Plan shall describe all control measures to be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.~~

- 303.2 A Dust Control Plan shall, at a minimum, contain all the information described in Section 304 of this rule. The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit. Failure to comply with the provisions of an approved Dust Control Plan is deemed to be a violation of this rule. Regardless of whether an approved Dust Control Plan is in place or not, the owner and/or operator of a dust generating operation is still subject to all requirements of this rule at all times. In addition, the owner and/or operator of a source with an approved Dust Control Plan is still subject to all of the requirements of this rule, even if such owner and/or operator is complying with the approved Dust Control Plan.
- 303.3 At least one primary control measure and one contingency control measure must be identified in the Dust Control Plan for all fugitive dust sources. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan under Section 305 of this rule.
- 303.4 A Dust Control Plan shall not be required for any of the following activities:
- a. To play on or maintain a field used for non-motorized sports;
  - b. For landscape maintenance, which, for the purpose of this rule, does not include grading, trenching, nor or any other mechanized surface disturbing activities; and
  - c. To establish initial landscapes or to redesign existing landscapes of legally-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, city parks, county regional parks, ballfields, camp sites, and playgrounds at camp sites; hiking paths, horse trails, and bicycle paths that are used exclusively for purposes other than travel by motor vehicles; (for the purpose of this rule, establishing initial landscapes or redesigning existing landscapes does not include grading, trenching, or any other mechanized surface disturbing activities).
- 304 ELEMENTS OF A DUST CONTROL PLAN: A Dust Control Plan shall contain, at a minimum, all of the following information:
- 304.1 Name(s), address(es), and phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust generating operation.
- 304.2 A drawing, on 8½" x 11" paper, that shows:
- a. Entire project site/facility boundaries;
  - b. Acres to be disturbed with linear dimensions;
  - c. Nearest public roads;
  - d. North arrow; and
  - e. Planned exit locations onto paved areas accessible to the public.
- 304.3 Control measures, or a combination thereof, to be applied to all actual and potential dust generating operations, before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.

- a. All required control measures from Tables 1-21 and at least one contingency control measure must be identified, for all dust-generating operations. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure(s) is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan under Section 305 of this rule.
  - b. Alternatively, a control measure(s) that is not listed in Tables 1-21 of this rule may be chosen, provided that such control measure(s) is implemented to comply with the standard(s) described in Section 301 and Section 302 of this rule, as determined by the corresponding test method(s), as applicable, and meets other applicable standard(s) set forth in this rule.
  - c. If complying with Section 302.2(b) Stabilization Requirements For Fugitive Dust Sources Unpaved Haul/Access Road of this rule, the Dust Control Plan must include the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).
- 304.4 Dust suppressants to be applied, including all of the following product specifications or label instructions for approved usage:
- a. Method, frequency, and intensity of application;
  - b. Type, number, and capacity of application equipment; and
  - c. Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.
- 304.5 Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved and/or access point join paved areas accessible to the public.
- 304.6 For construction projects one acre or larger, except for routine maintenance and repair done under a block permit, a statement disclosing which of the four designated texture(s) of soil described in Appendix F of these rules is naturally present at or will be imported to the dust-generating operation. The measured soil content at a particular site shall take precedence over any mapped soil types, and whenever soils have been tested at a particular site, the test results should be relied on rather than the map in Appendix F.

### 305 DUST CONTROL PLAN REVISIONS:

- 305.1 If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any dust-generating operation still exceed standards in Section 301 and Section 302 of this rule, then the Control Officer shall issue a written notice to the owner and/or operator of the dust-generating operation explaining such determination.
- 305.2 The owner and/or operator of a dust-generating operation shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the approved Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule.

306 CONTROL MEASURES:

- 306.1 The owner and/or operator of a dust generating operation shall implement control measures before, after, and while conducting operations, including during weekends, after work hours, and on holidays, in accordance with Section 304.3 and Tables 1-21 of this rule.
- 306.2 For the purpose of this rule, any control measure that is implemented must achieve the applicable standard(s) described in Sections 301 and 302 of this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule.
- 306.3 Failure to comply with the provisions of Section 308 (Work Practices) of this rule, as applicable, and/or of an approved Dust Control Plan, is deemed a violation of this rule.
- 306.4 Regardless of whether a dust generating operation is in compliance with an approved Dust Control Plan, or there is no approved dust control plan, the owner and/or operator of a dust generating operation is still subject to all requirements of this rule at all times.

307 PROJECT INFORMATION SIGN: For all sites with an earthmoving permit that are five acres or larger, except for routine maintenance and repair done under a block permit, the owner and/or operator shall erect and maintain a project information sign at the main entrance, that is readable by the public. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information:

- 307.1 Project name and permit holder,
- 307.2 Earthmoving Permit number,
- 307.3 Name and phone number of person(s) responsible for conducting the project, and
- 307.4 Text stating: "Dust Complaints? Call Maricopa County Environmental Services Department (insert the current/accurate phone number for the complaint phone line)."

308 WORK PRACTICES: When engaged in the following specific activities, the owner and/or operator of a dust generating operation shall comply with the following work practices in addition to implementing, as applicable, the control measures described in Tables 1-21 of this rule:

- 308.1 Bulk Material Hauling Off Site Onto Paved Areas Accessible to the Public:  
Notwithstanding other sections of this rule, the owner and/or operator of a dust generating operation and the owner and/or operator of a haul truck shall do all of the following:
  - a. Load all haul trucks such that the freeboard is not less than three inches;
  - b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s);
  - c. Cover all haul trucks with a tarp or other suitable closure; and
  - d. Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.

- ~~308.2 Bulk Material Hauling On Site Within the Boundaries of The Work Site: When crossing a paved area accessible to the public while construction is underway, the owner and/or operator of a dust generating operation shall do all of the following:~~
- ~~a. Load all haul trucks such that the freeboard is not less than three inches;~~
  - ~~b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and~~
  - ~~c. Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site. Examples of trackout control devices are described in Table 17 of this rule.~~
- ~~308.3 Trackout, Carry Out, Spillage, and/or Erosion: The owner and/or operator of a dust generating operation shall do all of the following:~~
- ~~a. Install, maintain and use a suitable trackout control device (examples of trackout control devices are described in Table 17 Trackout Control of this rule) that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such operation at all exits onto paved areas accessible to the public from both of the following:~~
    - ~~(1) All work sites with a disturbed surface area of two acres or larger, and~~
    - ~~(2) All work sites where 100 cubic yards of bulk materials are hauled on site and/or off site per day.~~
  - ~~b. Clean up, trackout, carry out, spillage, and/or erosion, on the following time schedule:~~
    - ~~(1) Immediately, when trackout, carry out, or spillage extends a cumulative distance of 50 linear feet or more; and~~
    - ~~(2) At the end of the workday, for all other trackout, carry out, spillage, and/or erosion.~~
- ~~308.4 Unpaved Haul/Access Roads: The owner and/or operator of a dust generating operation shall implement one or more control measure(s) described in Table 3 Unpaved Haul/Access Roads of this rule, before using or maintaining unpaved haul/access roads.~~
- ~~308.5 Easements, Rights Of Way, and Access Roads for Utilities (Electricity, Natural Gas, Oil, Water, and Gas Transmission) Associated with Sources that have a Non Title V Permit, a Title V Permit, and/or a General Permit under These Rules: The owner and/or operator of a dust generating operation shall do at least one of the following:~~
- ~~a. Inside the PM<sub>10</sub> nonattainment area, restrict vehicular speeds to 15 miles per hour and vehicular trips to no more than 20 per day per road;~~
  - ~~b. Outside the PM<sub>10</sub> nonattainment area, restrict vehicular trips to no more than 20 per day per road; or~~
  - ~~c. Implement control measures, as described in Table 3 Unpaved Haul/Access Roads of this rule.~~

~~308.6~~ ~~Open Storage Piles:~~ For the purpose of this rule, an open storage pile is any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and covers a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-96A or other equivalent method approved in writing by the Control Officer and the Administrator of EPA, that the silt content is less than 5%. The owner and/or operator of such dust generating operation shall comply with all of the following:

~~a. Prior to and/or while conducting stacking, loading, and unloading operations, comply with one of the following work practices:~~

~~(1) Spray material with water, as necessary; or~~

~~(2) Spray material with a dust suppressant other than water, as necessary.~~

~~b. When not conducting stacking, loading, and unloading operations, comply with one of the following work practices:~~

~~(1) Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings;~~

~~(2) Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent methods approved by the Control Officer and the Administrator of EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent methods approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content;~~

~~(3) Meet one of the stabilization requirements described in Section 302.3 of this rule; or~~

~~(4) Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If implementing this subsection, the owner and/or operator must also implement either Section 308.6(b)(2) or Section 308.6(b)(3) above.~~

~~308.7~~ ~~Soil Moisture:~~ If water is the chosen control measure in an approved Dust Control Plan, the owner and/or operator of a dust generating operation shall operate a water application system on site (e.g., water truck, water hose) while conducting any earthmoving operations on disturbed surface areas 1 acre or larger, unless a visible crust is maintained or the soil is sufficiently damp to prevent loose grains of soil from becoming dislodged.

~~308.8~~ ~~Weed Abatement by Discing or Blading:~~ The owner and/or operator of a dust generating operation shall comply with all of the following during weed abatement procedures by discing or blading:

~~a. Apply water before weed abatement by discing or blading occurs; and~~

~~b. Apply water while weed abatement by discing or blading is occurring; and~~

~~c. Either:~~

- (1) ~~Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs; or~~
- (2) ~~Establish vegetative ground cover in sufficient quantity, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs.~~

## SECTION 400 - ADMINISTRATIVE REQUIREMENTS

**401** ~~DUST CONTROL PLAN POSTING: The owner and/or operator of an earthmoving operation shall post a copy of the approved Dust Control Plan in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise keep a copy of the approved Dust Control Plan available on-site at all times. The owner and/or operator of a dust-generating operation that has been issued a Block Permit shall not be required to keep a copy of the 8½" by 11" site drawing according to Section 304.2 of this rule.~~ **DUST CONTROL PERMIT REQUIREMENTS:**

**401.1** To apply for a Dust Control permit, applicants shall complete Maricopa County's "Application For Dust Control Permit" form and shall supply all information required by the following three sections of the form:

- a. Applicant information;
- b. Project information, which shall include a project site drawing and, if the site is one acre or larger, soil designations; and
- c. Dust Control Plan, which shall meet the specifications described in Section 402 of this rule.

**401.2** A Dust Control permit shall be granted subject to, but not limited to, the following conditions:

- a. The permittee shall be responsible for ensuring that all persons abide by the conditions of the Dust Control permit and these regulations;
- b. The permittee shall be responsible for supplying complete copies of the Dust Control permit including the Dust Control Plan, to all project contractors and subcontractors;
- c. The permittee shall be responsible for all permit conditions, until a Permit Cancellation Request form has been submitted by the owner and/or operator and approved by the Control Officer;
- d. The permittee shall be responsible for providing Dust Control Coordinator's/ Coordinators' name(s) and dust control training certification information/number(s) to the Control Officer and for keeping such information updated.

**401.3** The signature of the permittee on the Dust Control permit application shall constitute agreement to accept responsibility for meeting the conditions of the Dust Control permit and for ensuring that control measures are implemented throughout the project site and during the duration of the project.

**402** ~~COMPLIANCE SCHEDULE: The requirements of this rule supercede any conflicting requirements that may be found in existing Dust Control Plans.~~ **DUST CONTROL PLAN REQUIREMENTS:**

- 402.1** For Earthmoving Permits: If any changes to a Dust Control Plan, associated with an Earthmoving Permit, are necessary as a result of the most recent revisions of this rule, such changes shall not be required until the Earthmoving Permit is required to be renewed. The owner and/or operator of a dust generating operation shall submit to the Control Officer a Dust Control Plan with any permit applications that involve dust generating operations with a disturbed surface area that equals or exceeds 0.10 acre (4,356 square feet) including both of the following situations:
- a. When submitting an application for a Dust Control permit involving dust generating operations that would equal or exceed 0.10 acre (4,356 square feet), and
  - b. Before commencing any routine dust generating operation at a site that has obtained or must obtain a Title V, Non-Title V, or General permit under Regulation II-Permits And Fees of these rules.
- 402.2** For Non Title V Permits And For Title V Permits: If any changes to a Dust Control Plan, associated with a Non Title V Permit or with a Title V Permit, are necessary as a result of the most recent revisions of this rule, then the owner and/or operator shall submit a revised Dust Control Plan to the Control Officer, according to the minor permit revision procedures described in Rule 220 and Rule 210 of these rules respectively, no later than 6 months after the effective date of the most recent revisions to this rule. The owner and/or operator of a dust generating operation shall submit to the Control Officer a Dust Control Plan with any application for a Dust Control permit. Applicants shall complete Maricopa County's "Application For Dust Control Permit" and submit such information as a Dust Control Plan. Applicants shall describe, in a Dust Control Plan, all control measures to be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.
- 402.3** A Dust Control Plan shall, at a minimum, contain all of the following information:
- a. Name(s), address(es), and phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust generating operation.
  - b. A drawing, on 8½" x 11" paper, that shows:
    - (1) Entire project site/facility boundaries,
    - (2) Acres to be disturbed with linear dimensions,
    - (3) Nearest public roads,
    - (4) North arrow, and
    - (5) Planned exit locations onto paved areas accessible to the public.
  - c. Appropriate control measures, or a combination thereof, as described in Section 305 of this rule, for every actual and potential dust generating operation.
    - (1) Control measures must be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.
    - (2) All required control measures and at least one contingency control measure must be identified for all dust generating operations. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately

implement the contingency control measure(s). If the identified contingency control measure(s) is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan.

(3) A control measure that is not listed in Section 305 of this rule may be chosen provided that such control measure is implemented to comply with the requirements described in Section 301 of this rule.

(4) If complying with Section 305.7-Control Measures For Dust Generating Operations-Unpaved Haul/Access Roads of this rule, the Dust Control Plan must include the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).

d. Dust suppressants to be applied, including all of the following product specifications or label instructions for approved usage:

(1) Method, frequency, and intensity of application;

(2) Type, number, and capacity of application equipment; and

(3) Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.

e. Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved and/or access points join paved areas accessible to the public.

**402.4** The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit, as described in Rule 200-Permit Requirements of these rules. Failure to comply with the provisions of an approved Dust Control Plan is deemed a violation of this rule.

**402.5** For construction projects one acre or larger, except for routine maintenance and repair done under a Dust Control permit-Block permit, a statement disclosing which of the four designated texture(s) of soil described in Appendix F of these rules is naturally present at or will be imported to the dust generating operation. The measured soil content at a particular site shall take precedence over any mapped soil types, and whenever soils have been tested at a particular site, the test results should be relied on rather than the map in Appendix F of these rules.

**402.6** At least one primary control measure and one contingency control measure must be identified in the Dust Control Plan for all dust generating sources. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan.

## **403 DUST CONTROL PLAN REVISIONS:**

### **403.1 If Required By The Control Officer:**

a. If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any dust generating operation still exceed the standards of this rule, then the Control Officer shall issue a written notice to the

owner and/or operator of the dust generating operation explaining such determination.

- b. The owner and/or operator of a dust generating operation shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the approved Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule.

#### **403.2 If Requested By The Permittee:**

- a. If the acreage of a project changes, the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.
- b. If the permit holder changes, the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.
- c. If the name(s), address(es), or phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust generating operation change, the the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.
- d. If the activities related to the purposes for which the Dust Control permit was obtained change, the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.

#### **403.3 If Rule 310 Is Revised:**

- a. If any changes to a Dust Control Plan are necessary as a result of the most recent revisions of this rule, such changes to the Dust Control Plan shall not be required until the associated Dust Control permit is required to be renewed.
- b. If any changes to a Dust Control Plan, associated with a Title V permit or with a Non-Title V permit, are necessary as a result of the most recent revisions of this rule, then the owner and/or operator shall submit a revised Dust Control Plan to the Control Officer, according to the minor permit revision procedures described in Rule 210 or in Rule 220 of these rules respectively, no later than six months after the effective date of the most recent revisions to this rule.

### **404 DUST CONTROL PERMIT-BLOCK PERMIT REQUIREMENTS:**

- 404.1 A Dust Control permit-Block permit application may be submitted to the Control Officer, if one or more of the activities listed in this section of this rule are conducted and if such activities occur at more than one site (i.e., projects that involve multiple small areas scattered throughout Maricopa County, including but not limited to, fiber optic cable installation and natural gas line extension). New construction shall obtain a separate Dust Control permit.

- a. Routine operation (i.e., municipalities, governmental agencies, and utilities that are responsible for the repeat maintenance of infrastructure, including but not limited to weed control around a prison, canal road grading, and road shoulder grading).
- b. Maintenance (i.e., municipalities, governmental agencies, and utilities that are responsible for the repeat maintenance of infrastructure, including but not limited to weed control around a prison, canal road grading, and road shoulder grading).
- c. Expansion or extension of utilities, paved roads, unpaved roads, road shoulders, alleys, and public rights-of-way at non-contiguous sites by municipalities, governmental agencies, and utilities.

**404.2** When completing and submitting a Dust Control permit-Block permit application, the owner and/or operator shall comply with the following requirements:

- a. A Dust Control Plan that meets the criteria described in Section 402 of this rule and applies to all sites shall be submitted to the Control Officer with the Dust Control permit-Block permit application.
- b. A list of all sites, including the location and size of each site, shall be submitted to the Control Officer with the Dust Control permit-Block permit application.
- c. For any project not listed in the Dust Control permit-Block permit application, the applicant shall notify the Control Officer in writing at least three working days prior to commencing the dust generating operation. The notice shall include the site location, size, type of activity, and start date.

**404.3** The dust generating operation(s) shall commence within 12 months of the Dust Control permit-Block permit issuance.

**404.4** The Dust Control permit-Block permit will cover crews that work for the municipalities and/or utilities, including subcontractors. However, municipalities and/or utilities shall retain overall authority for dust control on the project.

**405** **APPROVAL OR DENIAL OF PERMIT APPLICATIONS FOR DUST GENERATING OPERATIONS:** The Control Officer shall take final action on a Dust Control permit application, a Dust Control permit revision, or a Dust Control permit-block permit within 14 calendar days of the filing of the complete application. The Control Officer shall notify the applicant in writing of his approval or denial.

**406** **TERMS FOR PERMITS FOR DUST GENERATING OPERATIONS:** A Dust Control permit issued according to this rule shall be issued for a period of one year from the date of issuance. Should the project last longer than one year from the date the permit was issued, the permittee shall re-apply for a Dust Control Permit at least 14 calendar days prior to the expiration date of the original permit.

**407** **DEFACING, ALTERING, FORGING, COUNTERFEITING, OR FALSIFYING PERMITS FOR DUST GENERATING OPERATIONS:** A person shall not willfully deface, alter, forge, counterfeit, or falsify any Dust Control permit issued under the provisions of this rule.

**408** **FEES FOR PERMITS FOR DUST GENERATING OPERATIONS:** No Dust Control permit is valid until the applicable Dust Control permit fee has been received and until the Dust Control permit is issued by the Control Officer.

**409** **POSTING OF PERMITS FOR DUST GENERATING OPERATIONS:** A Dust Control permit and a Dust Control Plan, as approved by the Control Officer, shall be posted in a

conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise be kept available on-site at all times.

- 410** **COMPLIANCE SCHEDULE:** The newly amended provisions of this rule shall become effective upon adoption of this rule. An owner and/or operator of a dust generating operation subject to this rule shall meet all applicable provisions of this rule upon adoption of the newly amended provisions of this rule and according to the following schedule:

**410.1 Basic Dust Control Training Class:** No later than December 31, 2008, a site superintendent or other designated on-site representative of the permit holder and water truck and water pull drivers for each site shall have successfully completed the Basic Dust Control Training Class, as described in Section 309.1 of this rule.

**410.2 Dust Control Coordinator:** No later than June 30, 2008, any site and/or any contiguous site under common control of five acres or more of disturbed surface area subject to a permit shall, at all times during primary dust generating operations related to the purposes for which the Dust Control permit was obtained, have on-site at least one individual designated by the permit holder as a Dust Control Coordinator, as described in Section 310 of this rule.

## **SECTION 500 - MONITORING AND RECORDS**

- 501 COMPLIANCE DETERMINATION:** To determine compliance with the visible emissions requirements in Section 303 of this rule and with the stabilization requirements in Section 304 of this rule, the following test methods shall be followed:

### **501.1 Opacity Observations:**

- a. **Dust Generating Operations:** Opacity observations of a source engaging in dust generating operations shall be conducted in accordance with Appendix C, Section 3-Time Averaged Methods Of Visual Opacity Determination Of Emissions From Dust Generating Operations of these rules.
- b. **Unpaved Parking Lot:** Opacity observations of any unpaved parking lot shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots of these rules.
- c. **Unpaved Haul/Access Road:** Opacity observations of any unpaved haul/access road (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots of these rules.

### **501.2 Stabilization Observations:**

- a. **Unpaved Parking Lot:** Stabilization observations for unpaved parking lots shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots of these rules. When more than ~~4~~ one test method is permitted for a determination, an exceedance of the limits established in this rule determined by any of the applicable test methods ~~constitutes~~ shall constitute a violation of this rule.
- b. **Unpaved Haul/Access Road:** Stabilization observations for unpaved haul/access roads (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization-For Unpaved Roads And

Unpaved Parking Lots of these rule. When more than ~~4~~ one test method is permitted for a determination, an exceedance of the limits established in this rule determined by any of the applicable test methods ~~constitutes~~ shall constitute a violation of this rule.

- c. ~~Open Area And Vacant Lot~~ **Disturbed Surface Area:** Stabilization observations for ~~an open area and vacant lot or~~ any disturbed surface area on which no activity is occurring (whether at a work site that is under construction, at a work site that is temporarily or permanently inactive) shall be conducted in accordance with at least one of the techniques described in ~~subsection~~ Section 501.2(c)(1) through subsection Section 501.2(c)(7) below, as applicable. The owner and/or operator of such inactive disturbed surface area shall be considered in violation of this rule if such inactive disturbed surface area is not maintained in a manner that meets at least ~~4~~ one of the standards described in ~~subsection 302.3~~ Section 304.3 of this rule, as applicable.

- (1) Appendix C, Section 2.3-Test Methods For Stabilization-~~Visible Soil~~ Crust Determination-The Drop Ball/Steel Ball Test of these rules for a visible crust; or
- (2) Appendix C, Section 2.4-Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)-Sieving Field Procedure of these rules for threshold friction velocity (TFV) corrected for non-erodible elements of 100 cm/second or higher; or
- (3) Appendix C, Section 2.5-Test Methods For Stabilization-Determination Of Flat Vegetative Cover of these rules for flat vegetation cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%; or
- (4) Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%; or
- (5) Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements; or
- (6) Appendix C, Section 2.7-Test Methods For Stabilization-Rock Test Method of these rules for a percent cover that is equal to or greater than 10%, for non-erodible elements; or
- (7) An alternative and equivalent test method approved in writing by the Control Officer and the Administrator ~~of the EPA.~~

## 502 RECORDKEEPING:

- 502.1** Any person who conducts dust generating operations that require a Dust Control Plan shall keep ~~a daily written log~~ a written record of self-inspection on each day dust generating operations are conducted. Self-inspection records shall include daily inspections for crusted or damp soil, trackout conditions and clean-up measures, daily water usage, and dust suppressant application. Such written record shall also include the ~~actual application or implementation of the control measures delineated in the approved Dust Control Plan (including records on any street sweeping, water applications, and~~

~~maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps).~~  
following information:

- a. Method, frequency, and intensity of application or implementation of the control measures;
- b. Method, frequency, and amount of water application to the site;
- c. Street sweeping frequency;
- d. Types of surface treatments applied to and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps;
- e. Types and results of test methods conducted;
- f. If contingency control measures are implemented, actual application or implementation of contingency control measures and why contingency control measures were implemented;
- g. List of subcontractors' names and registration numbers updated when changes are made; and
- h. Names of employee(s) who successfully completed dust control training class(es) required by Section 309 of this rule, date of the class(es) that such employee(s) successfully completed, and name of the agency/representative who conducted such class(es).

**502.2** Any person who conducts dust generating operations that do not require a Dust Control Plan shall compile and retain records (including records on any street sweeping, water applications, and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps) that provide evidence of control measure application, by indicating the type of treatment or control measure, extent of coverage, and date applied.

**502.3** Upon verbal or written request by the Control Officer, the log or the records and supporting documentation shall be provided ~~within~~ as soon as possible but no later than 48 hours, excluding weekends. If the Control Officer is at the site where requested records are kept, records shall be provided without delay.

**503** **RECORDS RETENTION:** ~~Copies~~ Any person who conducts dust generating operations that require a Dust Control Plan shall retain copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation ~~shall be retained~~ for at least six months following the termination of the dust generating operation and for at least two years from the date such records were initiated. ~~Copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation shall be retained for at least 1 year from the date such records were initiated.~~ If a person has obtained a Title V Permit and is subject to the requirements of this rule, then such person shall retain records required by this rule for at least ~~5~~ five years from the date such records are established.

**504** **TEST METHODS ADOPTED BY REFERENCE:** The test methods listed in this section are adopted by reference. These adoptions by reference include no future editions or amendments. Copies of the test methods listed in this section are available for review at the ~~Maricopa County Environmental Services Department~~ Maricopa County Air Quality Department, 1001 North Central Avenue, Phoenix, AZ, 85004-1942.

**504.1** ASTM Method ~~C136-96A~~ C136-06 ("Standard Test Method For Sieve Analysis Of Fine And Coarse Aggregates"), ~~1996~~ 2006 edition.

- 504.2** ASTM Method ~~D2216-98~~ D2216-05 ("Standard Test Method For Laboratory Determination Of Water (Moisture) Content Of Soil And Rock By Mass"), ~~1998~~ 2005 edition.
- 504.3** ASTM Method ~~D1557-91(1998)~~ D1557-02e1 ("Test Method For Laboratory Compaction Characteristics Of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>))"), ~~1998~~ 2002 edition.

Table 1

Vehicle Use In Open Areas And Vacant Lots

- a. An owner and/or operator must implement one of the following control measures:
  - 1. Restrict trespass by installing signs; or
  - 2. Install physical barriers such as curbs, fences, gates, posts, signs, shrubs, and/or trees to prevent access to the area.

Table 2

Unpaved Parking Lots

- a. An owner and/or operator must implement one of the following control measures:
  - 1. Pave;
  - 2. Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with Section 302.1 of this rule; or
  - 3. Apply a suitable dust suppressant in compliance with Section 302.1 of this rule.
- b. Suggested additional control measure for contingency plans:
  - 1. Limit vehicle speeds to 15 m.p.h. on the site.

Table 3

Unpaved Haul/Access Roads

- a. An owner and/or operator must implement one of the following control measures:
  - 1. Limit vehicle speed to 15 m.p.h or less and limit vehicular trips to no more than 20 day;
  - 2. Apply water, so that the surface is visibly moist in compliance with Section 302.2 of this rule;
  - 3. Pave;
  - 4. Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with Section 302.2 of this rule; or
  - 5. Apply a suitable dust suppressant, in compliance with Section 302.2 of this rule.

Table 4

Open Areas And Vacant Lots

- a. An owner and/or operator must implement one of the following control measures to comply with Section 302.3 of this rule:
  - 1. Pave, apply gravel, or apply a suitable dust suppressant;
  - 2. Establish vegetative ground cover in sufficient quantity; or
  - 3. Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.

Table 5

Disturbed Surface Areas—Pre Activity Work Practices

- a. Before activity begins, an owner and/or operator must implement one of the following control measures:
  - 1. Pre water site to depth of cuts, allowing time for penetration; or
  - 2. Phase work to reduce the amount of disturbed surface areas at any one time.

Table 6

Disturbed Surface Areas—Work Practices During Operations

- a. During operations, an owner and/or operator must implement one of the following control measures:
  - 1. Apply water or other suitable dust suppressant, in compliance with Section 301 of this rule;
  - 2. Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent method as approved by the Control Officer and the Administrator of EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent method approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or

3. Implement (a)(1) or (a)(2) above and construct fences or three foot to five foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of windblown material leaving a site.
- b. Suggested additional control measure for contingency plans:
  1. Limit vehicle speeds to 15 m.p.h on the work site.

Table 7  
Disturbed Surface Areas—Temporary Stabilization (Up To 8 Months)  
During Weekends, After Work Hours, And On Holidays

- a. An owner and/or operator must implement one of the following control measures to comply with Section 302.3 of this rule:
  1. Pave, apply gravel, or apply a suitable dust suppressant;
  2. Establish vegetative ground cover in sufficient quantity; or
  3. Implement (a)(1) or (a)(2), above, and restrict vehicular access to the area.

Table 8  
Disturbed Surface Areas—Permanent Stabilization  
(Required Within 8 Months Of Ceasing Dust Generating Operations)

- a. An owner and/or operator must implement one of the following control measures to comply with Section 302.3 of this rule:
  1. Pave, apply gravel, or apply a suitable dust suppressant;
  2. Establish vegetative ground cover in sufficient quantity; or
  3. Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.

Table 9  
Blasting Operations

- a. An owner and/or operator must implement all of the following control measures:
  1. In wind gusts above 25 m.p.h., discontinue blasting; and
  2. Pre water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.

Table 10  
Demolition Activities

- a. An owner and/or operator must implement all of the following control measures:
  1. Stabilize demolition debris. Apply water to debris immediately following demolition activity; and
  2. Stabilize surrounding area immediately following demolition activity. Water all disturbed soil surfaces to establish a crust and prevent wind erosion of soil.
- b. Suggested additional control measure for contingency plans:
  1. Thoroughly clean blast debris from paved and other surfaces following demolition activity.

Table 11  
Bulk Material Handling Operations  
Work Practices For Stacking, Loading, And Unloading Operations

- a. An owner and/or operator must implement one of the following control measures:
  1. Spray material with water, as necessary, prior to stacking, loading, and unloading, and/or while stacking, loading, and unloading;
  2. Spray material with a dust suppressant other than water, as necessary, prior to stacking, loading, and unloading, and/or while stacking, loading, and unloading.
- b. Suggested additional control measures for contingency plans:
  1. Pre water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.
  2. Remove material from the downwind side of the storage pile when safe to do so.

3. Empty loader bucket slowly and keep loader bucket close to the truck to minimize the drop height while dumping.

Table 12

Open Storage Piles

When Not Conducting Stacking, Loading, And Unloading Operations

- a. An owner and/or operator must implement one of the following control measures:
  1. Cover open storage piles with tarps, plastic, or other material such that the coverings will not be dislodged by wind;
  2. Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent methods approved by the Control Officer and the Administrator of the EPA; or for areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent methods approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the soil moisture content;
  3. Meet the stabilization requirements described in Section 302.3 of this rule; or
  4. Implement (a)(2) or (a)(3), above, and construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%.

Table 13

Bulk Material Hauling/Transporting Within The Boundaries Of The Work Site

When Crossing A Paved Area Accessible To The Public

While Construction Is Underway

- a. An owner and/or operator must implement all of the following control measures:
  1. Load all haul trucks such that the freeboard is not less than 3 inches when crossing a paved area accessible to the public while construction is underway;
  2. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s);
  3. Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site.
- b. Suggested additional control measure for contingency plans:
  1. Limit vehicle speeds to 15 m.p.h. on the work site.

Table 14

Bulk Material Hauling/Transporting When On Site Hauling/Transporting

Within The Boundaries Of The Work Site But Not Crossing

A Paved Area Accessible To The Public

- a. An owner and/or operator must implement one of the following control measures:
  1. Limit vehicular speeds to 15 m.p.h. or less while traveling on the work site;
  2. Apply water to the top of the load in compliance with Section 301 of this rule; or
  3. Cover haul trucks with a tarp or other suitable closure.

Table 15

Bulk Material Hauling/Transporting Off Site Hauling/Transporting

Onto Paved Areas Accessible To The Public

- a. An owner and/or operator must implement all of the following control measures:
  1. Cover haul trucks with a tarp or other suitable closure;
  2. Load all haul trucks such that the freeboard is not less than 3 inches;
  3. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
  4. Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.

Table 16 Clean Up Of Trackout, Carry Out, Spillage, And Erosion	
a-	An owner and/or operator must implement one of the following control measures:
1-	Operate a street sweeper or wet broom with sufficient water, at the speed recommended by the manufacturer and at the frequency(ies) described in Section 308.3 of this rule; or
2-	Manually sweep up deposits in compliance with Section 308.3 of this rule.

Table 17 Trackout Control	
a-	An owner and/or operator must implement all of the following control measures:
1-	Immediately clean up trackout that exceeds 50 feet. All other trackout must be cleaned up at the end of the workday; and
2-	In accordance with Section 308.3(a), prevent trackout by implementing one of the following control measures:
i-	At all access points, install a grizzly or wheel wash system.
ii-	At all access points, install a gravel pad at least 30 feet wide, 50 feet long, and 6 inches deep, in compliance with Section 213 of this rule.
iii-	Pave starting from the point of intersection with a paved area accessible to the public and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
b-	Suggested additional control measures for contingency plans:
1-	Clearly establish and enforce traffic patterns to route traffic over selected trackout control devices.
2-	Limit site accessibility to routes with trackout control devices in place by installing effective barriers on unprotected routes.
3-	Pave construction activity roadways as soon as possible.

Table 18 Weed Abatement By Discing Or Blading	
a-	An owner and/or operator must implement all of the following control measures:
1-	Pre water site;
2-	Apply water while weed abatement by discing or blading is occurring; and
3-	Stabilize area by implementing either one of the following:
i-	Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs; or
ii-	Establish vegetative ground cover in sufficient quantity, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs.
b-	Suggested additional control measures for contingency plans
1-	Limit vehicle speeds to 15 m.p.h. during discing and blading operations.

Table 19 Easements, Rights Of Way, And Access Roads For Utilities (Electricity, Natural Gas, Oil, Water, And Gas Transmission) Associated With Sources That Have A Non Title V Permit, A Title V Permit, And/Or A General Permit Under These Rules	
a-	An owner and/or operator must implement one of the following control measures:
1-	Inside the PM10 nonattainment area, restrict vehicular speeds to 15 m.p.h. and vehicular trips to no more than 20 per day per road;
2-	Outside the PM10 nonattainment area, restrict vehicular trips to no more than 20 per day per road; or
3-	Implement control measures, as described in Table 3 (Unpaved Haul/Access Roads) of this rule.

Note: For Tables 20 & 21, control measures in [brackets] are to be applied only to dust generating operations outside the nonattainment area.

Table 20
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**Wind Event Control Measures Dust-Generating Operations**

- a. An owner and/or operator must implement one of the following control measures:
1. Cease dust-generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 m.p.h. and if dust-generating operations are ceased for the remainder of the work day, stabilize the area;
  2. Apply water or other suitable dust suppressant at least twice [once] per hour, in compliance with Section 301 of this rule;
  3. Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent method as approved by the Control Officer and the Administrator of EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent method approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or
  4. Implement (a)(2) or (a)(3), above, and construct fences or three-foot-to-five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of wind-blown material leaving a site.

Table 21

**Wind Event Control Measures Temporary Disturbed Surface Areas  
(After Work Hours, Weekends, Holidays)**

- a. An owner and/or operator must implement one of the following control measures:
1. Uniformly apply and maintain surface gravel or dust suppressants, in compliance with Section 302.3 of this rule;
  2. Apply water to all disturbed surface areas 3 times per day. If there is any evidence of wind-blown dust, increase watering frequency to a minimum of 4 times per day;
  3. Apply water on open storage piles at least twice [once] per hour, in compliance with Section 302.3 of this rule; or
  4. Cover open storage piles with tarps, plastic, or other material such that wind will not remove the covering(s).
- b. Suggested additional control measures for contingency plans:
1. Implement a combination of the control measures listed in (a)(1) through (a)(4), above.

**REGULATION III - CONTROL OF AIR CONTAMINANTS**

**RULE 310.01**

**FUGITIVE DUST FROM**

OPEN AREAS, VACANT LOTS, UNPAVED PARKING LOTS, AND UNPAVED ROADWAYS

**NON-TRADITIONAL SOURCES OF FUGITIVE DUST**

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**MARICOPA COUNTY  
AIR POLLUTION CONTROL REGULATIONS  
REGULATION III - CONTROL OF AIR CONTAMINANTS  
RULE 310.01**

**FUGITIVE DUST FROM  
~~OPEN AREAS, VACANT LOTS, UNPAVED PARKING LOTS, AND UNPAVED ROADWAYS~~  
NON-TRADITIONAL SOURCES OF FUGITIVE DUST**

**SECTION 100 - GENERAL**

**101 PURPOSE:** ~~To limit the emission of particulate matter into the ambient air from open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310-Fugitive Dust of these rules, and which do not require a permit nor a Dust Control Plan. The effect of this rule shall be to fine particulate matter (PM<sub>10</sub>) entrained into the ambient air as a result of the impact of human activities by requiring measures to prevent, reduce, or mitigate particulate matter emissions.~~ To minimize the amount of fugitive dust entrained into the ambient air from non-traditional sources of fugitive dust by requiring measures to prevent, reduce, or mitigate fugitive dust emissions.

**102 APPLICABILITY:** ~~The provisions of this rule shall apply to open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310-Fugitive Dust of these rules and which do not require a permit nor a Dust Control Plan. In addition, the provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and A.R.S. § 42-12152. The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4.~~

**102.1** The provisions of this rule shall apply to non-traditional sources of fugitive dust that are conducted in Maricopa County, except for those dust generating operations listed in Section 103 of this rule.

**102.2** The provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and A.R.S. § 42-12152.

**103 EXEMPTIONS:**

**103.1** The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4.

**103.2** The provisions of this rule shall not apply to dust generating operations that are subject to the standards and/or requirements described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

**103.3** The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status.

**103.4** An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in this rule.

- 103.5 Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching, performed to establish initial landscapes or to redesign existing landscapes.
- 103.6 Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules.
- 103.7 Vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot.
- 103.8 An unpaved roadway (including alleys) is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.

**SECTION 200 - DEFINITIONS:** See Rule 100-General Provisions And Definitions of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply:

- 201 **ANIMAL WASTE** - Any animal excretions and mixtures containing animal excretions.
- 202 **AREA A** - As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows:  
Township 8 North, Range 2 East and Range 3 East  
Township 7 North, Range 2 West through Range 5 East  
Township 6 North, Range 5 West through Range 6 East  
Township 5 North, Range 5 West through Range 7 East  
Township 4 North, Range 5 West through Range 8 East  
Township 3 North, Range 5 West through Range 8 East  
Township 2 North, Range 5 West through Range 8 East  
Township 1 North, Range 5 West through Range 7 East  
Township 1 South, Range 5 West through Range 7 East  
Township 2 South, Range 5 West through Range 7 East  
Township 3 South, Range 5 West through Range 1 East  
Township 4 South, Range 5 West through Range 1 East
- 203 **AREA ACCESSIBLE TO THE PUBLIC** – Any parking lot or public roadway that is accessible to public travel primarily for purposes unrelated to the dust generating operation.
- ~~201~~**204 BULK MATERIAL** - Any material, including, but not limited to, the following materials ~~earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than 2 inches in length or diameter (i.e., aggregate base course (ABC)), earth, soil, dirt, mud, demolition debris, cotton, trash, cinders, pumice, rock, saw dust, feeds, grains, fertilizers, fluff (from shredders), and dry concrete,~~ that are capable of producing fugitive dust.:
- 204.1 Earth
- 204.2 Rock
- 204.3 Silt
- 204.4 Sediment
- 204.5 Sand
- 204.6 Gravel
- 204.7 Soil

- 204.8 Fill
- 204.9 Aggregate less than 2 inches in length or diameter (i.e., aggregate base course [ABC])
- 204.10 Dirt
- 204.11 Mud
- 204.12 Demolition debris
- 204.13 Cotton
- 204.14 Trash
- 204.15 Cinders
- 204.16 Pumice
- 204.17 Saw dust
- 204.18 Feeds
- 204.19 Grains
- 204.20 Fertilizers
- 204.21 Fluff from shredders
- 204.22 Dry concrete

**202205 CHEMICAL/ORGANIC STABILIZER** - Any non-toxic chemical or organic dust suppressant, other than water, which meets any specifications, criteria, or tests required by any Federal, State, or local water agency and is not prohibited for use by any applicable law, rule, or regulation.

**203206 CONTROL MEASURE** - A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.

**204207 DISTURBED SURFACE AREA** – A portion of the earth's surface ~~(or material placed thereupon)~~ which or material placed on the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, ~~thereby increasing the potential for the emission of fugitive dust.~~ if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. ~~For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 300 of this rule.~~

**208 DUST GENERATING OPERATION** - Any activity capable of generating fugitive dust, including but not limited to, the following activities:

- 208.1 Land clearing, maintenance, and land cleanup using mechanized equipment
- 208.2 Earthmoving
- 208.3 Weed abatement by discing or blading
- 208.4 Excavating
- 208.5 Construction
- 208.6 Demolition
- 208.7 Bulk material handling (e.g., bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations)
- 208.8 Storage and/or transporting operations (e.g., open storage piles, bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations)
- 208.9 Operation of any outdoor equipment
- 208.10 Operation of motorized machinery
- 208.11 Establishing and/or using staging areas, parking areas, material storage areas, or access routes to and from a site
- 208.12 Establishing and/or using unpaved haul/access roads to, from, and within a site
- 208.13 Disturbed surface areas associated with a site
- 208.14 Installing initial landscapes using mechanized equipment

**205209 DUST SUPPRESSANT** - Water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer, or any other dust palliative, which is not prohibited for ground surface application by the Environmental Protection Agency (EPA) or the Arizona

Department of Environmental Quality (ADEQ), or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.

- 210** **EMERGENCY** - A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- 211** **EMERGENCY ACTIVITY** - Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality.
- 212** **FEED LANE ACCESS AREAS** - Roads providing access from the feed preparation areas to and including feed land areas at a livestock activity. These access roads are typically used to distribute feed from feed trucks to the animals.
- 206** **FEEDLOTS AND/OR LIVESTOCK AREAS** - Any area on which an operation directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity exists.
- 207213** **FUGITIVE DUST** - The particulate matter not collected by a capture system, that is entrained in the ambient air and is caused from human and/or natural activities, such as, but not limited to, movement of soil, vehicles, equipment, blasting, and wind. ~~For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules.~~
- 214** **GRAVEL PAD** - A layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter, that is maintained at the point of intersection of a paved area accessible to the public and a work site entrance to dislodge mud, dirt, and/or debris from the tires of motor vehicles and/or haul trucks, prior to leaving the work site. A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater.
- 215** **GRIZZLY** - A device (i.e., rails, pipes, or grates) used to dislodge mud, dirt, and/or debris from the tires and undercarriage of motor vehicles and/or haul trucks prior to leaving the work site.
- 216** **LIVESTOCK ACTIVITIES** - Any activity directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity, including but not limited to, livestock arenas, horse arenas, and feed lots.
- 208217** **MOTOR VEHICLE** - A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.
- 218** **NON-TRADITIONAL SOURCE OF FUGITIVE DUST** - A source of fugitive dust that is located at a source that does not require any permit under these rules. The following non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules:
- 218.1** **Vehicle use in open areas and vacant lots**

- 218.2 Open areas and vacant lots
- 218.3 Unpaved parking lots
- 218.4 Unpaved roadways (including alleys)
- 218.5 Livestock activities
- 218.6 Erosion-caused deposition of bulk materials onto paved surfaces
- 218.7 Easements, rights-of-way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission)
- ~~209~~**219** **NORMAL FARM CULTURAL PRACTICE** - All activities by the owner, lessee, agent, independent contractor, and/or supplier conducted on any facility for the production of crops and/or nursery plants. Disturbances of the field surface caused by turning under stalks, tilling, leveling, planting, fertilizing, or harvesting are included in this definition.
- ~~210~~**220** **OFF-ROAD VEHICLE** - Any self-propelled conveyance specifically designed for off-road use, including, but not limited to, off-road or all-terrain equipment, trucks, cars, motorcycles, motorbikes, or motorbuggies.
- ~~211~~**221** **OPEN AREAS AND VACANT LOTS** - Any of the following described in ~~Section 211.1~~ Section 221.1 through ~~Section 211.4~~ Section 221.3 of this rule. ~~For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot.~~
- ~~211.1~~**221.1** An unsubdivided or undeveloped tract of land adjoining a developed or a partially developed residential, industrial, institutional, governmental, or commercial area.
- ~~211.2~~**221.2** A subdivided residential, industrial, institutional, governmental, or commercial lot that contains no approved or permitted buildings or structures of a temporary or permanent nature.
- ~~211.3~~**221.3** A partially developed residential, industrial, institutional, governmental, or commercial lot.
- ~~211.4~~ A tract of land, in the PM<sub>10</sub> nonattainment area, adjoining agricultural property.
- ~~212~~**222** **OWNER AND/OR OPERATOR** - Any person who owns, leases, operates, controls, or supervises a fugitive dust source subject to the requirements of this rule.
- ~~213~~**223** **PAVE** - To apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt).
- ~~214~~**224** **PM<sub>10</sub> NONATTAINMENT AREA** - An area designated by the EPA as exceeding national ambient air quality standards based upon data collected thru air quality monitoring. The geographical boundary of Maricopa County's PM<sub>10</sub> nonattainment area is defined as the rectangle determined by and including the following townships and ranges: T6N, R3W; T6N, R7E; T2S, R3W; T2S, R7E; and T1N, R8E. Maricopa County's PM<sub>10</sub> nonattainment area includes the following cities: Surprise, Peoria, Glendale, Phoenix, Scottsdale, Tempe, Mesa, Gilbert, Chandler, Avondale, Buckeye, and Goodyear.
- 225** **PROPERTY LINE** - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.
- ~~215~~**226** **PUBLIC ROADWAYS** - Any roadways that are open to public travel.
- 227** **TRACKOUT/CARRYOUT** – Any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public.

**228 TRACKOUT CONTROL DEVICE** - A gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved area accessible to the public that controls or prevents vehicular trackout.

**229 UNPAVED ACCESS CONNECTIONS** - Any unpaved road connection with a paved public road.

**216230 UNPAVED PARKING LOT** - Any area ~~larger than 5,000 square feet~~ that is not paved and that is used for parking, maneuvering, material handling, or storing motor vehicles and equipment. An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities.

**217231 UNPAVED ROADWAY (INCLUDING ALLEYS)** - A road that is not paved and that is owned by Federal, State, county, municipal, or other governmental or quasi-governmental agencies. ~~For the purpose of this rule, an unpaved roadway (including alleys) is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.~~ An unpaved roadway (including alleys) includes designated or opened trail systems and service roads regardless of surface composition.

**218232 VACANT LOT** - The definition of vacant lot is included in ~~Section 211~~ Section 221-Definition Of Open Areas And Vacant Lots of this rule.

## **SECTION 300 - STANDARDS**

### **301 GENERAL REQUIREMENTS FOR NON-TRADITIONAL SOURCES OF FUGITIVE DUST:**

**301.1** An owner and/or operator of a non-traditional source of fugitive dust shall be subject to the standards and/or requirements described in this rule. Failure to comply with any such standards and/or requirements is deemed a violation of this rule.

**301.2** When an owner and/or operator of a non-traditional source of fugitive dust fails to stabilize disturbed surfaces of vacant lots as required in Section 302.4 and Section 302.5 of this rule, the Control Officer shall commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following:

**a.** Reasonable written notice to the owner or the owner's authorized agent or the owner's statutory agent that the unpaved disturbed surface of a vacant lot is required to be stabilized. The notice shall be given not less than 30 days before the day set for compliance and shall include a legal description of the property and the estimated cost to the county for the stabilization if the owner does not comply. The notice shall be either personally served or mailed by certified mail to the owner's statutory agent, to the owner at the owner's last known address or to the address to which the tax bill for the property was last mailed.

**b.** Authority to enter upon any said land/property where such non-traditional source of fugitive dust exists/where such disturbed surface area exists and to take remedial and/or corrective action as may be deemed appropriate to cope with and relieve, reduce, remedy, and/or stabilize such non-traditional source of fugitive dust/such disturbed surface area. Any cost incurred in connection with any such remedial or corrective action by the Maricopa County Air Quality Department or any person acting for the Maricopa County Air Quality Department shall be reimbursed by the owner and/or operator of such non-traditional source of fugitive dust.

**302 CONTROL MEASURES FOR NON-TRADITIONAL SOURCES OF FUGITIVE DUST:**

**302.1** When engaged in the activities described in Section 302.4 through Section 302.10 of this rule, the owner and/or operator of a non-traditional source of fugitive dust shall implement control measures as described in Section 302.4 through Section 302.10 of this rule, as applicable.

**302.2** Control measures shall be implemented to achieve the visible emissions requirements, as required for each activity and the compliance determination in Section 501 of this rule.

**302.3** Failure to implement control measures as required by this rule, as applicable, and/or failure to maintain stabilization of a non-traditional source of fugitive dust with adequate surface crusting to prevent wind erosion as measured by the requirements in this rule shall be deemed a violation of this rule.

**302.4 Vehicle Use In Open Areas And Vacant Lots:** The owner and/or operator of a non-traditional source of fugitive dust that involves vehicle use in open areas and vacant lots shall be subject to the visible emissions requirements described in Section 302.4(a) of this rule and, unless otherwise specified and/or required, shall comply with the control measures described in Section 302.4(b) of this rule and the additional requirements described in Section 302.4(c) of this rule.

**a. Visible Emissions Requirements:** The owner and/or operator of a non-traditional source of fugitive dust that involves vehicle use in open areas and vacant lots shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.

**b. Control Measures:**

**(1)** Prevent motor vehicle and/or off-road vehicle trespassing, parking, and/or access by installing barriers, curbs, fences, gates, posts, shrubs, trees, or other effective control measures; or

**(2)** Prevent motor vehicle and/or off-road vehicle trespassing, parking, and/or access by posting that consists of one of the following:

**(a)** A sign written in compliance with ordinance(s) of local, County, State, or Federal sign standards.

**(b)** An order of a government land management agency.

**(c)** Most current maps approved by a government land management agency.

**(d)** Virtual posting a government land management agency.

**(3)** Uniformly apply and maintain surface gravel or chemical/organic stabilizers to all areas disturbed by motor vehicles and/or off-road vehicles; or

**(4)** Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator.

**c. Additional Requirements:**

**(1)** If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed by being driven over and/or used by motor vehicles, by off-road vehicles, or for material dumping,

then the owner and/or operator shall implement one or more of the control measures described in Section 302.4(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of disturbance or vehicle use on open areas and vacant lots.

- (2) Within 30 calendar days following the initial discovery by the Control Officer of disturbance or vehicle use on open areas and vacant lots, the owner and/or operator shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented to prevent such disturbance or vehicle use on open areas and vacant lots.
- (3) The owner and/or operator shall implement all control measures necessary to limit the disturbance or vehicle use on open areas and vacant lots in accordance with the requirements of this rule. Control measure(s) shall be considered effectively implemented when the open areas and vacant lots achieve the compliance determinations described in Section 501 of this rule.
- (4) Once a control measure in Section 302.4(b) of this rule has been effectively implemented, then such open area or vacant lot is subject to the requirements of Section 302.5-Open Areas And Vacant Lots of this rule.
- (5) Use of or parking on open areas and vacant lots by the owner and/or operator of such open areas and vacant lots shall not be considered vehicle use in open areas and vacant lots and shall not be subject to the requirements of Section 302.4(b) and Section 302.4(c)(1) through Section 302.4(c)(4) of this rule. Such open areas and vacant lots shall still achieve the compliance determinations described in Section 501 of this rule.
- (6) Establishing initial landscapes without the use of mechanized equipment or conducting landscape maintenance without the use of mechanized equipment shall not be considered vehicle use in open areas and vacant lots and shall not be subject to the requirements of Section 302.4(b) and Section 302.4(c)(1) through Section 302.4(c)(4) of this rule. Such open areas and vacant lots shall still achieve the compliance determinations described in Section 501 of this rule.

**302.5 Open Areas And Vacant Lots:** The owner and/or operator of a non-traditional source of fugitive dust that involves open areas and vacant lots shall be subject to the visible emissions requirements described in Section 302.5(a) of this rule and, unless otherwise specified and/or required, shall comply with the control measures described in Section 302.5(b) of this rule and the additional requirements described in Section 302.5(c) of this rule.

**a. Visible Emissions Requirements:** The owner and/or operator of a non-traditional source of fugitive dust that involves open areas and vacant lots shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.

**b. Control Measures:**

- (1) Establish vegetative ground cover on all disturbed surface areas. Such control measure(s) must be maintained and reapplied, if necessary. Stabilization shall be achieved, per this control measure, within eight months after the control measure has been implemented.
- (2) Apply a dust suppressant to all disturbed surface areas.

- (3) Restore all disturbed surface areas within 60 calendar days following the initial discovery by the Control Officer of the disturbance, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions. Such control measure(s) must be maintained and reapplied, if necessary. Stabilization shall be achieved, per such control measure, within eight months after such control measure has been implemented.
- (4) Uniformly apply and maintain surface gravel.
- (5) Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator.

**c. Additional Requirements:**

- (1) If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed and if such disturbed area remains unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator shall implement one or more of the control measures described in Section 302.5(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots.
- (2) Within 30 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots, the owner and/or operator shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented.
- (3) Control measure(s) shall be considered effectively implemented when the disturbance on the open areas and vacant lots achieves the compliance determinations described in Section 501 of this rule.

**302.6 Unpaved Parking Lots:** The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved parking lots shall be subject to the requirements described in Section 302.6(a) of this rule and, unless otherwise specified and/or required, shall comply with one of the control measures described in Section 302.6(b) of this rule and the additional requirements described in Section 302.6(c) of this rule.

**a. Visible Emissions Requirements And Stabilization Requirements:**

- (1) The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved parking lots shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.
- (2) The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved parking lots shall not cause or allow visible fugitive dust emissions to exceed 20% opacity and either Section 302.6(a)(2)(a) or Section 302.6(a)(2)(b) of this rule:
  - (a) Shall not allow silt loading equal to or greater than 0.33 oz/ft<sup>2</sup>; or
  - (b) Shall not allow the silt content to exceed 8%.

**b. Control Measures:**

- (1) Pave;

(2) Apply dust suppressants other than water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site;

(3) Uniformly apply and maintain surface gravel; or

(4) Apply water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site.

**c. Additional Requirements:**

(1) The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 302.6(b) of this rule on any surface area(s) of the lot on which vehicles enter, park, and exit.

(a) If an unpaved parking lot is utilized for a period of 35 days or less during the calendar year, the owner and/or operator shall implement one or more of the control measures described in Section 302.6(b) of this rule during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented.

(b) If an unpaved parking lot is utilized for more than 35 days during the calendar year, the owner and/or operator shall implement one or more of the control measures described in Section 302.6(b)(1) through Section 302.6(b)(3) of this rule during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented.

(2) Control measure(s) shall be considered effectively implemented when the unpaved parking lot achieves the compliance determinations described in Section 501 of this rule.

(3) If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout.

(4) Parking, maneuvering, ingress, and egress areas at developments other than residential buildings with four or fewer units shall be maintained with one or more of the following dustproof paving methods:

(a) Asphaltic concrete.

(b) Cement concrete.

(c) Penetration treatment of bituminous material and seal coat of bituminous binder and a mineral aggregate.

(d) A stabilization method approved in writing by the Control Officer and the Administrator.

- (5) Parking, maneuvering, ingress, and egress areas 3,000 square feet or more in size at residential buildings with four or fewer units shall be maintained with a paving or stabilization method authorized by the county by code, ordinance, or permit.

**302.7 Unpaved Roadways (Including Alleys):** The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved roadways (including alleys) that are used by 150 vehicle trips or more per day in the PM<sub>10</sub> nonattainment area shall be subject to the stabilization requirements described in Section 302.7(a) of this rule and, unless otherwise specified and/or required, shall comply with one of the control measures described in Section 302.7(b) of this rule and the additional requirements described in Section 302.7(c) of this rule.

**a. Stabilization Requirements:** The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved roadways (including alleys) shall not cause or allow visible fugitive dust emissions to exceed 20% opacity and either Section 302.7(a)(1) or Section 302.7(a)(2) of this rule:

- (1) Shall not allow silt loading equal to or greater than 0.33 oz/ft<sup>2</sup>; or  
(2) Shall not allow the silt content to exceed 6%.

**b. Control Measures:**

- (1) Pave;  
(2) Apply dust suppressants other than water; or  
(3) Uniformly apply and maintain surface gravel.

**c. Additional Requirements:**

- (1) If a person allows 150 vehicle trips or more per day to use an unpaved roadway (including an alley) in the PM<sub>10</sub> nonattainment area, then such person shall first implement one of the control measures described in Section 302.7(b) of this rule.
- (2) A person, who allows 150 vehicle trips or more per day to use an unpaved roadway (including an alley) in the PM<sub>10</sub> nonattainment area, shall be responsible for conducting vehicle counts/traffic counts to determine if 150 vehicle trips or more per day occur on an unpaved roadway (including an alley). Two separate 24-hour traffic counts shall be conducted. The average vehicle counts/traffic counts on the highest trafficked days shall be recorded and provided to the Control Officer in writing within 60 days of verbal or written request by the Control Officer.
- (3) Control measure(s) shall be considered effectively implemented under the following conditions:
- (a) When the unpaved roadway (including an alley) achieves the compliance determinations described in Section 302.8(a) of this rule.
- (b) When one of the control measures described in Section 302.7(b) of this rule is implemented on 5 miles of unpaved roadways (including alleys) having vehicle traffic of 150 vehicle trips or more per day within one calendar year beginning in calendar year of 2008. If the control measure described in

Section 302.7(b)(2) of this rule is implemented, the unpaved roadways (including alleys) must be maintained so as to comply with Appendix C of these rules.

**302.8 Livestock Activities:** The owner and/or operator of a non-traditional source of fugitive dust that involves livestock activities shall be subject to the visible emissions requirements described in Section 302.8(a) of this rule and, unless otherwise specified and/or required, shall comply with the control measures described in Section 302.8(b) of this rule and the additional requirements described in Section 302.8(c) of this rule.

**a. Visible Emissions Requirements:**

- (1) For unpaved access connections and unpaved feed lane access areas, the owner and/or operator shall not cause or allow visible fugitive dust emissions to exceed 20% opacity.
- (2) For corrals, pens, and arenas, the owner and/or operator shall not cause or allow visible fugitive dust emissions to exceed 20% opacity for a period aggregating more than three minutes in any 60-minute period.
- (3) The owner and/or operator shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.

**b. Control Measures:**

- (1) For unpaved access connections:
  - (a) Apply and maintain dust suppressants other than water; or
  - (b) Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase.
- (2) For unpaved feed lane access areas:
  - (a) Apply and maintain dust suppressants other than water; or
  - (b) Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase.
- (3) For bulk material hauling, including animal waste, off-site and crossing and/or accessing a paved area accessible to the public:
  - (a) Load all vehicles used to haul bulk material, including animal waste, such that the freeboard is not less than three inches;
  - (b) Prevent spillage or loss of bulk material, including animal waste, from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s);
  - (c) Cover cargo compartment with a tarp or other suitable closure; and
  - (d) Install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site.
- (4) For corrals, pens, and arenas:

(a) Apply water; or

(b) Install shrubs and/or trees within 50 feet to 100 feet of corrals, pens, and arenas.

**c. Additional Requirements:**

(1) The owner and/or operator of livestock activities shall implement one of the control measures described in Section 302.8(b)(1), Section 302.8(b)(2), Section 302.8(b)(3), and Section 302.8(b)(4) of this rule, as applicable.

(2) Control measure(s) shall be considered effectively implemented when the livestock activities achieve the compliance determinations described in Section 501 of this rule.

(3) If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout.

**302.9 Erosion-Caused Deposition Of Bulk Materials Onto Paved Surfaces:** The owner and/or operator of a non-traditional source of fugitive dust that involves erosion-caused deposition of bulk materials onto paved surfaces shall comply with the control measures described in Section 302.9(a) of this rule and the additional requirements described in Section 302.9(b) of this rule.

**a. Control Measures:**

(1) Remove any and all such deposits by utilizing the appropriate control measures within 24 hours of the deposits' identification or prior to the resumption of traffic on pavement, where the pavement area has been closed to traffic; and

(2) Dispose of deposits in such a manner so as not to cause another source of fugitive dust.

**b. Additional Requirements:**

(1) In the event that erosion-caused deposition of bulk materials or other materials occurs on any adjacent paved roadway, paved parking lot, curb, gutter, or sidewalk, the owner and/or operator of the property from which the deposition eroded shall implement both of the control measures described in Section 302.9(a) of this rule.

(2) Failure to comply with both of the control measures described in Section 302.9(a) of this rule shall constitute a violation of this rule.

**302.10 Easements, Rights-Of-Way, And Access Roads For Utilities (Transmission Of Electricity, Natural Gas, Oil, Water, And Gas):** The owner and/or operator of a non-traditional source of fugitive dust that involves easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas) that are used by 130 vehicle trips or more per day in Area A shall be subject to the stabilization requirements described in Section 302.10(a) of this rule and unless otherwise specified and/or required, comply with one of the control measures described in Section 302.10(b) of this rule and the additional requirements described in Section 302.10(c) of this rule.

**a. Stabilization Requirements:** The owner and/or operator of a non-traditional source of fugitive dust that involves easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas) shall not cause or allow visible fugitive dust emissions to exceed 20% opacity and either Section 302.10(a)(1) or Section 302.10(a)(2) of this rule:

(1) Shall not allow silt loading equal to or greater than 0.33 oz/ft<sup>2</sup>; or

(2) Shall not allow the silt content to exceed 6%.

**b. Control Measures:**

(1) Pave;

(2) Apply dust suppressants other than water;

(3) Uniformly apply and maintain surface gravel; or

(4) Install locked gates at each entry point.

**c. Additional Requirements:**

(1) If an owner and/or operator allows 130 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in Area A, then such owner and/or operator shall first implement one of the control measures described in Section 302.10(b) of this rule.

(2) A person, who allows 130 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in Area A, shall be responsible for conducting vehicle counts/traffic counts to determine if 130 vehicle trips or more per day occur on an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas). Such person shall provide to the Control Officer written results of such vehicle counts/traffic counts within 60 days of verbal or written request by the Control Officer.

(3) Control measure(s) shall be considered effectively implemented when the easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) achieves the compliance determinations described in Section 501 of this rule.

301 **VEHICLE USE IN OPEN AREAS AND VACANT LOTS:** If open areas and vacant lots are 0.10 acre or larger and have a cumulative of 500 square feet or more that are driven over and/or used by motor vehicles and/or off road vehicles, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 301.1 of this rule within 60 calendar days following the initial discovery of vehicle use on open areas and vacant lots. Within 30 calendar days following the initial discovery by the Control Officer of vehicle use on open areas and vacant lots, the owner and/or operator of such open areas and vacant lots shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented to prevent such vehicle use on open areas and vacant lots. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the open areas and vacant lots meet one of the stabilization limitations described in Section 301.2 of this rule. Once a control measure in Section 301.1 of this rule has been effectively implemented, then such open area or vacant lot is subject to the requirements of Section 302 (Open Areas And Vacant Lots) of

~~this rule. Use of or parking on open areas and vacant lots by the owner and/or operator of such open areas and vacant lots and/or landscape maintenance of such open areas and vacant lots shall not be considered vehicle use in open areas and vacant lots, although such open areas and vacant lots shall still meet the stabilization limitations described in Section 301.2 of this rule. For the purpose of this rule, landscape maintenance does not include grading, trenching, nor any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.~~

~~301.1—Control Measures:~~

- ~~a.—Prevent motor vehicle and/or off road vehicle trespassing, parking, and/or access, by installing barriers, curbs, fences, gates, posts, signs (written in English and Spanish and in compliance with ordinance(s) of local jurisdictions), shrubs, trees, or other effective control measures.~~
- ~~b.—Uniformly apply and maintain surface gravel or chemical/organic stabilizers to all areas disturbed by motor vehicles and/or off road vehicles in compliance with one of the stabilization limitations described in Section 301.2 of this rule.~~
- ~~c.—Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator of the EPA.~~

~~301.2—Stabilization Limitations:~~

- ~~a.—A visible crust shall be implemented, as determined by Appendix C, Section 2.3 (Test Methods For Stabilization Visible Crust Determination) (The Drop Ball/Steel Ball Test) of these rules; or~~
- ~~b.—A threshold friction velocity (TFV) corrected for non erodible elements of 100 cm/second or higher shall be implemented, as determined by Appendix C, Section 2.4 (Test Methods For Stabilization Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of these rules; or~~
- ~~c.—Flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50% shall be implemented, as determined by Appendix C, Section 2.5 (Test Methods For Stabilization Determination Of Flat Vegetative Cover) of these rules; or~~
- ~~d.—Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30% shall be implemented, as determined by Appendix C, Section 2.6 (Test Methods For Stabilization Determination Of Standing Vegetative Cover) of these rules; or~~
- ~~e.—Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non erodible elements shall be implemented, as determined by Appendix C, Section 2.6 (Test Methods For Stabilization Determination Of Standing Vegetative Cover) of these rules; or~~
- ~~f.—A percent cover that is equal to or greater than 10% for non erodible elements shall be implemented, as determined by Appendix C, Section 2.7 (Test Methods For Stabilization Rock Test Method) of these rules; or~~

- g. ~~An alternative test method approved in writing by the Control Officer and the Administrator of the EPA shall be implemented.~~

302 OPEN AREAS AND VACANT LOTS: If open areas and vacant lots have 0.5 acre or more of disturbed surface area and remain unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 302.1 of this rule within 60 calendar days following the initial discovery of the disturbance on the open areas and vacant lots. Within 30 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots, the owner and/or operator of such open areas and vacant lots shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the open areas and vacant lots meet one of the stabilization limitations described in Section 302.2 of this rule. Should an open area or vacant lot on which no activity is occurring contain more than one type of disturbance, soil, vegetation, or other characteristics that are visibly distinguishable, then each representative surface shall be tested separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, according to the appropriate test methods in Appendix C of these rules and included or eliminated from the total size assessment of disturbed surface area(s) depending on test method results.

302.1—Control Measures:

- a. ~~Establish vegetative ground cover on all disturbed surface areas within 60 calendar days following the initial discovery of the disturbance. Such control measure(s) must be maintained and reapplied, if necessary, until the disturbed surface areas are stabilized, in compliance with one of the stabilization limitations described in Section 302.2 of this rule. Stabilization shall be achieved, per this control measure, within eight months after the control measure has been implemented.~~
- b. ~~Apply a dust suppressant to all disturbed surface areas, in compliance with one of the stabilization limitations described in Section 302.2 of this rule.~~
- c. ~~Restore all disturbed surface areas within 60 calendar days following the initial discovery of the disturbance, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions. Such control measure(s) must be maintained and reapplied, if necessary, until the disturbed surface areas are stabilized, in compliance with one of the stabilization limitations described in Section 302.2 of this rule. Stabilization shall be achieved, per such control measure, within eight months after such control measure has been implemented.~~
- d. ~~Uniformly apply and maintain surface gravel, in compliance with one of the stabilization limitations described in Section 302.2 of this rule.~~
- e. ~~Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator of the EPA.~~

302.2—Stabilization Limitations:

- a. ~~A visible crust shall be implemented, as determined by Appendix C, Section 2.3 (Test Methods For Stabilization Visible Crust Determination) (The Drop Ball/Steel Ball Test) of these rules; or~~
- b. ~~A threshold friction velocity (TFV), corrected for non-erodible elements of 100 cm/second or higher, shall be implemented, as determined by Appendix C, Section~~

~~2.4 (Test Methods For Stabilization Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of these rules; or~~

- ~~e. Flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50% shall be implemented, as determined by Appendix C, Section 2.5 (Test Methods For Stabilization Determination Of Flat Vegetative Cover) of these rules; or~~
- ~~d. Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30% shall be implemented, as determined by Appendix C, Section 2.6 (Test Methods For Stabilization Determination Of Standing Vegetative Cover) of these rules; or~~
- ~~e. Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements shall be implemented, as determined by Appendix C, Section 2.6 (Test Methods For Stabilization Determination Of Standing Vegetative Cover) of these rules; or~~
- ~~f. A percent cover that is equal to or greater than 10% for non-erodible elements shall be implemented, as determined by Appendix C, Section 2.7 (Test Methods For Stabilization Rock Test Method) of these rules; or~~
- ~~g. An alternative test method approved in writing by the Control Officer and the Administrator of the EPA shall be implemented.~~

303 UNPAVED PARKING LOTS: The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 303.1 of this rule on any surface area(s) of the lot on which vehicles enter, park, and exit. For unpaved parking lots that are utilized intermittently, for a period of 35 days or less during the calendar year, the owner and/or operator shall implement one of the control measures described in Section 303.1 of this rule, during the period that the unpaved parking lots are utilized for vehicle parking. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the unpaved parking lot meets the stabilization and opacity limitations described in Section 303.2 of this rule.

303.1—Control Measures:

- ~~a. Pave.~~
- ~~b. Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 303.2 of this rule.~~
- ~~c. Uniformly apply and maintain surface gravel, in compliance with the stabilization and opacity limitations described in Section 303.2 of this rule.~~

~~303.2—Stabilization And Opacity Limitations: For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from unpaved parking lots do not exceed 20% opacity and meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots) of these rules:~~

- ~~a. Silt loading is equal to or greater than 0.33 oz/ft<sup>2</sup>; or~~
- ~~b. Silt content does not exceed 8%.~~

304 UNPAVED ROADWAYS (INCLUDING ALLEYS): If a person allows 150 vehicles or more per day to use an unpaved roadway (including alleys) in the PM<sub>10</sub> nonattainment area, then such person shall first implement one of the control measures described in Section 304.1 of this rule. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the unpaved roadway (including alleys) meets the stabilization and opacity limitation described in Section 304.2 of this rule.

304.1—Control Measures:

- a.—Pave.
- b.—Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 304.2 of this rule.
- c.—Uniformly apply and maintain surface gravel, in compliance with the stabilization and opacity limitations described in Section 304.2 of this rule.

304.2—Stabilization And Opacity Limitations: For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from unpaved roadways (including alleys) do not exceed 20% opacity and meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots) of these rules:

- a.—Silt loading is equal to or greater than 0.33 oz/ft<sup>2</sup>; or
- b.—Silt content does not exceed 6%.

305 FEEDLOTS AND/OR LIVESTOCK AREAS: The owner and/or operator of any feedlot and/or livestock area shall implement one of the control measures described in Section 305.1 of this rule. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the feedlot and/or livestock area meets the opacity limitation described in Section 305.2 of this rule.

305.1—Control Measures:

- a.—Apply dust suppressants, in compliance with the opacity limitation described in Section 305.2 of this rule.
- b.—Uniformly apply and maintain surface gravel, in compliance with the opacity limitation described in Section 305.2 of this rule.
- c.—Install shrubs and/or trees within 50 feet to 100 feet of animal pens, in compliance with the opacity limitation described in Section 305.2 of this rule.

305.2—Opacity Limitation: For the purpose of this rule, control measures shall be considered effectively implemented when opacity observations for fugitive dust emissions from feedlots and/or livestock areas do not exceed 20% opacity, as determined by Appendix C, Section 3 (Visual Determination Of Opacity Of Emissions From Sources For Time-Average Regulations) of these rules.

306 EROSION CAUSED DEPOSITION OF BULK MATERIALS ONTO PAVED SURFACES: In the event that erosion caused deposition of bulk materials or other materials occurs on any adjacent paved roadway or paved parking lot, the owner and/or operator of the property from which the deposition eroded shall implement both of the control measures described in Section

~~306.1 of this rule. For the purpose of this rule, such control measures shall be considered effectively implemented when the deposition meets the opacity limitation described in Section 306.2 of this rule. Exceedances of the opacity limitation, due to erosion caused deposition of bulk materials onto paved surfaces, shall constitute a violation of the opacity limitation.~~

~~306.1—Control Measures:~~

- ~~a. Remove any and all such deposits by utilizing the appropriate control measures within 24 hours of the deposits' identification or prior to the resumption of traffic on pavement, where the pavement area has been closed to traffic; and~~
- ~~b. Dispose of deposits in such a manner so as not to cause another source of fugitive dust.~~

~~306.2—Opacity Limitation: For the purpose of this rule, control measures shall be considered effectively implemented when opacity observations for fugitive dust emissions from erosion caused deposition of bulk materials onto paved surfaces do not exceed 20% opacity, as described in Appendix C, Section 2.1 (Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots) of these rules.~~

307 ~~EASEMENTS, RIGHTS OF WAY, AND ACCESS ROADS FOR UTILITIES (ELECTRICITY, NATURAL GAS, OIL, WATER, AND GAS TRANSMISSION): If an owner and/or operator allows 150 vehicles or more per day to use an easement, right of way, and access road for utilities (electricity, natural gas, oil, water, and gas transmission) in the PM<sub>10</sub> nonattainment area, then such owner and/or operator shall first implement one of the control measures described in Section 307.1 of this rule. For the purpose of this rule, such control measure(s) shall be considered effectively implemented, when the easement, right of way, and access road for utilities (electricity, natural gas, oil, water, and gas transmission) meet the stabilization and opacity limitation described in Section 307.2 of this rule.~~

~~307.1—Control Measures:~~

- ~~a. Pave.~~
- ~~b. Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 307.2 of this rule.~~
- ~~c. Uniformly apply and maintain surface gravel, in compliance with the stabilization and opacity limitations described in Section 307.2 of this rule.~~

~~307.2—Stabilization And Opacity Limitations: For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from easements, rights of way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission) do not exceed 20% opacity and meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots) of these rules:~~

- ~~a. Silt loading is not equal to or greater than 0.33 oz/ft<sup>2</sup>; or~~
- ~~b. Silt content does not exceed 6%.~~

**SECTION 400 - ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)**

**SECTION 500 - MONITORING AND RECORDS**

**501** STABILIZATION OBSERVATIONS COMPLIANCE DETERMINATION: To determine compliance with this rule, the following test methods shall be followed:

**501.1 Opacity Observations:**

- a. Opacity observations to measure visible emissions shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination Of Opacity Of Emissions From Stationary Sources For Time-Exception Regulations). Emissions shall not exceed the applicable opacity standards of this rule for a period aggregating more than three minutes in any 60-minute period.
- b. Opacity observations to determine compliance with Sections 302.4, 302.6, 302.7, 302.8(a)(1), 302.8(a)(2), and 302.10 of this rule shall be conducted in accordance with the techniques specified in Appendix C (Fugitive Dust Test Methods) of these rules.

~~501.1~~**501.2** Stabilization observations for unpaved parking lots and/or unpaved roadways (including alleys) shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots of these rules.

~~501.2~~**501.3** Stabilization observations for an open area and vacant lot shall be conducted in accordance with the following:

- a. Appendix C, Section 2.3-Test Methods For Stabilization-Visible Soil Crust Determination- The Drop Ball/~~Steel Ball~~ Test of these rules; or
- b. Appendix C, Section 2.4-Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)-Sieving Field Procedure of these rules, where the threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements is 100 cm/second or higher; or
- c. Appendix C, Section 2.5-Test Methods For Stabilization-Determination Of Flat Vegetative Cover of these rules, where flat vegetation cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) is equal to at least 50%; or
- d. Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules, where standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) is equal to or greater than 30%; or
- e. Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules, where the standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) is equal to or greater than 10% and where the threshold friction velocity, corrected for non-erodible elements, is equal to or greater than 43 cm/second; or
- f. Appendix C, Section 2.7-Test Methods For Stabilization-Rock Test Method of these rules where a percent cover is equal to or greater than 10% for non-erodible elements.
- g. An alternative test method approved in writing by the Control Officer and the Administrator of the EPA.

- 502 RECORDKEEPING:** Any person subject to the requirements of this rule shall compile and retain records that provide evidence of control measure application (i.e., receipts and/or purchase records). Such person shall describe, in the records, the type of treatment or control measure, extent of coverage, and date applied. Upon verbal or written request by the Control Officer, such person shall provide the records and supporting documentation ~~within~~ as soon as possible but no later than 48 hours, excluding weekends. If the Control Officer is at the site where requested records are kept, such person shall provide the records without delay.
- 503 RECORDS RETENTION:** Copies of the records required by Section 502-Recordkeeping of this rule shall be retained for at least ~~one year~~ two years.

**Adopted 06/16/99  
Revised 02/16/00  
Revised 04/07/04**

## **APPENDIX C FUGITIVE DUST TEST METHODS**

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- SECTION 4 -** VISUAL OPACITY DETERMINATION OF EMISSIONS FROM LIVESTOCK ACTIVITIES - CORRALS, PENS, AND ARENAS

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## **MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS**

### **APPENDIX C FUGITIVE DUST TEST METHODS**

- 1. RESERVED**
- 2. TEST METHODS FOR STABILIZATION**
  - 2.1 For Unpaved Roads And Unpaved Parking Lots.**
    - 2.1.1 Opacity Test Method.** The purpose of this test method is to estimate the percent opacity of fugitive dust plumes caused by vehicle movement on unpaved roads and unpaved parking lots. This method can only be conducted by an individual who has received certification as a qualified observer. Qualification and testing requirements can be found in Section 3.4 of this appendix.
      - a. Step 1:** Stand at least 16.5 feet from the fugitive dust source in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to

the dust plume and wind direction. If multiple plumes are involved, do not include more than one plume in the line of sight at one time.

- b. **Step 2:** Record the fugitive dust source location, source type, method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the fugitive dust source. Also, record the time, estimated distance to the fugitive dust source location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), observer's position to the fugitive dust source, and color of the plume and type of background on the visible emission observation from both when opacity readings are initiated and completed.
- c. **Step 3:** Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make opacity observations approximately 1 meter above the surface from which the plume is generated. Note that the observation is to be made at only one visual point upon generation of a plume, as opposed to visually tracking the entire length of a dust plume as it is created along a surface. Make two observations per vehicle, beginning with the first reading at zero seconds and the second reading at five seconds. The zero-second observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume but, instead, observe the plume briefly at zero seconds and then again at five seconds.
- d. **Step 4:** Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 5-second period. While it is not required by the test method, EPA recommends that the observer estimate the size of vehicles which generate dust plumes for which readings are taken (e.g. mid-size passenger car or heavy-duty truck) and the approximate speeds the vehicles are traveling when readings are taken.
- e. **Step 5:** Repeat Step 3 (Subsection 2.1.1(c) of this appendix) and Step 4 (Subsection 2.1.1(d) of this appendix) until you have recorded a total of 12 consecutive opacity readings. This will occur once six vehicles have driven on the source in your line of observation for which you are able to take proper readings. The 12 consecutive readings must be taken within the same period of observation but must not exceed 1 hour. Observations immediately preceding and following interrupted observations can be considered consecutive.
- f. **Step 6:** Average the 12 opacity readings together. If the average opacity reading equals 20% or lower, the source is in compliance ~~with the opacity standard described in Rule 310 of these rules.~~

**2.1.2 Silt Content Test Method.** The purpose of this test method is to estimate the silt content of the trafficked parts of unpaved roads and unpaved parking lots. The higher the silt content, the more fine dust particles that are released when cars and trucks drive on unpaved roads and unpaved parking lots.

- a. **Equipment:**

- (1) A set of sieves with the following openings: 4 millimeters (mm), 2 mm, 1 mm, 0.5 mm and 0.25 mm (or a set of standard/commonly available sieves), a lid, and collector pan.
- (2) A small whisk broom or paintbrush with stiff bristles and dustpan 1 ft. in width (The broom/brush should preferably have one, thin row of bristles no longer than 1.5 inches in length).
- (3) A spatula without holes.
- (4) A small scale with half-ounce increments (e.g. postal/package scale).
- (5) A shallow, lightweight container (e.g. plastic storage container).
- (6) A sturdy cardboard box or other rigid object with a level surface.
- (7) A basic calculator.
- (8) Cloth gloves (optional for handling metal sieves on hot, sunny days).
- (9) Sealable plastic bags (if sending samples to a laboratory).
- (10) A pencil/pen and paper.

- b. Step 1:** Look for a routinely traveled surface, as evidenced by tire tracks. [Only collect samples from surfaces that are not damp due to precipitation or dew. This statement is not meant to be a standard in itself for dampness where watering is being used as a control measure. It is only intended to ensure that surface testing is done in a representative manner.] Use caution when taking samples to ensure personal safety with respect to passing vehicles. Gently press the edge of a dustpan (1 foot in width) into the surface four times to mark an area that is 1 square foot. Collect a sample of loose surface material using a whiskbroom or brush and slowly sweep the material into the dustpan, minimizing escape of dust particles. Use a spatula to lift heavier elements such as gravel. Only collect dirt/gravel to an approximate depth of 3/8 inch or 1 cm in the 1 square foot area. If you reach a hard, underlying subsurface that is < 3/8 inch in depth, do not continue collecting the sample by digging into the hard surface. In other words, you are only collecting a surface sample of loose material down to 1 cm. In order to confirm that samples are collected to 1 cm in depth, a wooden dowel or other similar narrow object at least one foot in length can be laid horizontally across the survey area while a metric ruler is held perpendicular to the dowel.

- At this point, you can choose to place the sample collected into a plastic bag or container and take it to an independent laboratory for silt content analysis. A reference to the procedure the laboratory is required to follow is at the end of this section.

- c. **Step 2:** Place a scale on a level surface. Place a lightweight container on the scale. Zero the scale with the weight of the empty container on it. Transfer the entire sample collected in the dustpan to the container, minimizing escape of dust particles. Weigh the sample and record its weight.
- d. **Step 3:** Stack a set of sieves in order according to the size openings specified above, beginning with the largest size opening (4 mm) at the top. Place a collector pan underneath the bottom (0.25 mm) sieve.
- e. **Step 4:** Carefully pour the sample into the sieve stack, minimizing escape of dust particles by slowly brushing material into the stack with a whiskbroom or brush. (On windy days, use the trunk or door of a car as a wind barricade.) Cover the stack with a lid. Lift up the sieve stack and shake it vigorously up, down and sideways for at least 1 minute.
- f. **Step 5:** Remove the lid from the stack and disassemble each sieve separately, beginning with the top sieve. As you remove each sieve, examine it to make sure that all of the material has been sifted to the finest sieve through which it can pass (e.g., material in each sieve (besides the top sieve that captures a range of larger elements) should look the same size). If this is not the case, re-stack the sieves and collector pan, cover the stack with the lid, and shake it again for at least 1 minute. (You only need to reassemble the sieve(s) that contain material, which requires further sifting.)
- g. **Step 6:** After disassembling the sieves and collector pan, slowly sweep the material from the collector pan into the empty container originally used to collect and weigh the entire sample. Take care to minimize escape of dust particles. You do not need to do anything with material captured in the sieves – only the collector pan. Weigh the container with the material from the collector pan and record its weight.
- h. **Step 7:** If the source is an unpaved road, multiply the resulting weight by 0.38. If the source is an unpaved parking lot, multiply the resulting weight by 0.55. The resulting number is the estimated silt loading. Then, divide by the total weight of the sample you recorded earlier in Step 2 (Subsection 2.1.2(c) of this appendix) and multiply by 100 to estimate the percent silt content.
- i. **Step 8:** Select another two routinely traveled portions of the unpaved road or unpaved parking lot and repeat this test method. Once you have calculated the silt loading and percent silt content of the 3 samples collected, average your results together.
- j. **Step 9:** Examine Results. If the average silt loading is less than 0.33 oz/ft<sup>2</sup>, the surface is STABLE. If the average silt loading is greater than or equal to 0.33 oz/ft<sup>2</sup>, then proceed to examine the average percent silt content. If the source is an unpaved road and the average percent silt content is 6% or less, the surface is STABLE. If the source is an unpaved parking lot and the average percent silt content is 8% or less, the surface is STABLE. If your field test results are within 2% of the standard (for example, 4%-8% silt content on an unpaved road), it is recommended that you collect 3 additional samples from the source according to Step 1 (Subsection 2.1.2(b) of this appendix) and take them to an independent laboratory for silt content analysis.

- k. **Independent Laboratory Analysis:** You may choose to collect 3 samples from the source, according to Step 1 (Subsection 2.1.2(b) of this appendix), and send them to an independent laboratory for silt content analysis rather than conduct the sieve field procedure. If so, the test method the laboratory is required to use is: "Procedures For Laboratory Analysis Of Surface/Bulk Dust Loading Samples", (Fifth Edition, Volume I, Appendix C.2.3 "Silt Analysis", 1995), AP-42, Office of Air Quality Planning & Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina.

**2.2 Stabilization Limitations For Open Areas And Vacant Lots.** The test methods described in Section 2.3 through Section 2.7 of this appendix shall be used to determine whether an open area or a vacant lot has a stabilized surface. Should a disturbed open area or vacant lot contain more than one type of disturbance, soil, vegetation, or other characteristics, which are visibly distinguishable, test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, according to the appropriate test methods in Section 2.3 through Section 2.7 of this appendix. ~~and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results.~~

**2.3 Visible Soil Crust Determination (The Drop Ball Test).**

**2.1.2 Silt Content Test Method.** The purpose of this test method is to estimate the silt content of the trafficked parts of unpaved roads and unpaved parking lots. The higher the silt content, the more fine dust particles that are released when cars and trucks drive on unpaved roads and unpaved parking lots.

**2.3.1** ~~Where a visible crust exists, drop~~ Drop a steel ball with a diameter of 15.9 millimeters (0.625 inches) and a mass ranging from 16-17 grams (~~0.56-0.60 ounce~~) from a distance of ~~30 centimeters (one foot)~~ one-foot directly above (at a 90° angle perpendicular to) the soil surface. If blowsand is present, clear the blowsand from the surfaces on which ~~the visible crust test method~~ Drop Ball Test is conducted. Blowsand is defined as thin deposits of loose uncombined grains covering less than 50% of a vacant lot or project site ~~which that~~ have not originated from the representative ~~vacant lot~~ surface being tested. If material covers a visible crust, which is not blowsand, apply the test method in Section 2.4-Determination Of Threshold Friction Velocity (TFV) of this appendix to the loose material to determine whether the surface is stabilized.

**2.3.2** A sufficient crust is defined under the following conditions: once a ball has been dropped according to subsection 2.3.1 of this appendix, the ball does not sink into the surface, so that it is partially or fully surrounded by loose grains and, upon removing the ball, the surface upon which it fell has not been pulverized, so that loose grains are visible.

**2.3.3** Randomly select each representative disturbed surface for the Drop Ball Test by using a blind "over the shoulder" toss of a throwable object (e.g., a metal weight with survey tape attached). Using the point of fall as the lower left-hand corner, measure a one-foot square area. Drop the ball three times within a survey area that measures 1 foot by 1 foot and that represents a random portion of the overall disturbed conditions of the site the one-foot by one-foot square survey area, using a consistent pattern across the survey area. The survey area shall be considered to have passed the Visible Crust Determination Test Drop Ball Test if at least two out of the three times that the ball was dropped, the results met the criteria in subsection 2.3.2 of this appendix.

Select at least two other survey areas that represent a random portion of the overall disturbed conditions of the site, and repeat this procedure. If the results meet the criteria of subsection 2.3.2 of this appendix for all of the survey areas tested, then the site shall be considered to have passed the ~~Visible-Crust Determination Test~~ Drop Ball Test and shall be considered sufficiently crusted.

**2.3.4** At any given site, the existence of a sufficient crust covering one portion of the site may not represent the existence or protectiveness of a crust on another portion of the site. Repeat the ~~visible-crust test~~ Drop Ball Test as often as necessary on each ~~random~~ portion of the overall conditions of the site using the random selection method set forth in subsection 2.3.3 of this appendix for an accurate assessment.

**2.4 Determination Of Threshold Friction Velocity (TFV).** For disturbed surface areas that are not crusted or vegetated, determine threshold friction velocity (TFV) according to the following sieving field procedure (based on a 1952 laboratory procedure published by W. S. Chepil).

**2.4.1** Obtain and stack a set of sieves with the following openings: 4 millimeters (mm), 2 mm, 1 mm, 0.5 mm, and 0.25 mm or obtain and stack a set of standard/commonly available sieves. Place the sieves in order according to size openings, beginning with the largest size opening at the top. Place a collector pan underneath the bottom (0.25 mm) sieve. Collect a sample of loose surface material from an area at least 30 cm by 30 cm in size to a depth of approximately 1 cm using a brush and dustpan or other similar device. Only collect soil samples from dry surfaces (i.e. when the surface is not damp to the touch). Remove any rocks larger than 1 cm in diameter from the sample. Pour the sample into the top sieve (4 mm opening) and cover the sieve/collector pan unit with a lid. Minimize escape of particles into the air when transferring surface soil into the sieve/collector pan unit. Move the covered sieve/collector pan unit by hand using a broad, circular arm motion in the horizontal plane. Complete twenty circular arm movements, ten clockwise and ten counterclockwise, at a speed just necessary to achieve some relative horizontal motion between the sieves and the particles. Remove the lid from the sieve/collector pan unit and disassemble each sieve separately beginning with the largest sieve. As each sieve is removed, examine it for loose particles. If loose particles have not been sifted to the finest sieve through which they can pass, reassemble and cover the sieve/collector pan unit and gently rotate it an additional ten times. After disassembling the sieve/collector pan unit, slightly tilt and gently tap each sieve and the collector pan so that material aligns along one side. In doing so, minimize escape of particles into the air. Line up the sieves and collector pan in a row and visibly inspect the relative quantities of catch in order to determine which sieve (or whether the collector pan) contains the greatest volume of material. If a visual determination of relative volumes of catch among sieves is difficult, use a graduated cylinder to measure the volume. Estimate TFV for the sieve catch with the greatest volume using Table 1 of this appendix, which provides a correlation between sieve opening size and TFV.

**Table 1. Determination Of Threshold Friction Velocity**

<b>Tyler Sieve No.</b>	<b>ASTM 11 Sieve No.</b>	<b>Opening (mm)</b>	<b>TFV (cm/s)</b>
5	5	4	135
9	10	2	100

16	18	1	76
32	35	0.5	58
60	60	0.25	43
Collector Pan	—	—	30

- 2.4.2** Collect at least three soil samples which represent random portions of the overall conditions of the site, repeat the above TFV test method for each sample and average the resulting TFVs together to determine the TFV uncorrected for non-erodible elements. Non-erodible elements are distinct elements, in the random portion of the overall conditions of the site, that are larger than 1 cm in diameter, remain firmly in place during a wind episode, and inhibit soil loss by consuming part of the shear stress of the wind. Non-erodible elements include stones and bulk surface material but do not include flat or standing vegetation. For surfaces with non-erodible elements, determine corrections to the TFV by identifying the fraction of the survey area, as viewed from directly overhead, that is occupied by non-erodible elements using the following procedure. For a more detailed description of this procedure, see Section 2.7 (Test Methods For Stabilization-Rock Test Method) of this appendix. Select a survey area of 1 meter by 1 meter that represents a random portion of the overall conditions of the site. Where many non-erodible elements lie within the survey area, separate the non-erodible elements into groups according to size. For each group, calculate the overhead area for the non-erodible elements according to the following equations:

$$(\text{Average Length}) \times (\text{Average Width}) = \text{Average Dimensions.} \quad \text{Eq. 1}$$

$$(\text{Average Dimensions}) \times (\text{Number Of Elements}) = \text{Overhead Area.} \quad \text{Eq. 2}$$

$$\text{Overhead Area Of Group 1} + \text{Overhead Area Of Group 2 (etc.)} = \text{Total Overhead Area.} \quad \text{Eq. 3}$$

$$\text{Total Overhead Area}/2 = \text{Total Frontal Area.} \quad \text{Eq. 4}$$

$$(\text{Total Frontal Area}/\text{Survey Area}) \times 100 = \text{Percent Cover Of Non-Erodible Elements.} \quad \text{Eq. 5}$$

**Note:** Ensure consistent units of measurement (e.g., square meters or square inches when calculating percent cover).

Repeat this procedure on an additional two distinct survey areas that represent a random portion of the overall conditions of the site and average the results. Use Table 2 of this appendix to identify the correction factor for the percent cover of non-erodible elements. Multiply the TFV by the corresponding correction factor to calculate the TFV corrected for non-erodible elements.

**Table 2. Correction Factors For Threshold Friction Velocity**

<u>Percent Cover Of Non-Erodible Elements</u>	<u>Correction Factor</u>
Greater than or equal to 10%	5
Greater than or equal to 5% and less than 10%	3
Less than 5% and greater than or equal to 1%	2
Less than 1%	None

- 2.5 Determination Of Flat Vegetative Cover:** Flat vegetation includes attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind. Flat vegetation, which is dead but firmly attached, shall be considered equally protective as live vegetation. Stones or other aggregate larger than 1 centimeter in diameter shall be considered protective cover in the course of conducting the line transect test method. Where flat vegetation exists, conduct the following line transect test method.

**2.5.1 Line Transect Test Method.** Stretch a 100 foot measuring tape across a survey area that represents a random portion of the overall conditions of the site. Firmly anchor both ends of the measuring tape into the surface using a tool such as a screwdriver, with the tape stretched taut and close to the soil surface. If vegetation exists in regular rows, place the tape diagonally (at approximately a 45° angle) away from a parallel or perpendicular position to the vegetated rows. Pinpoint an area the size of a 3/32 inch diameter brazing rod or wooden dowel centered above each 1 foot interval mark along one edge of the tape. Count the number of times that flat vegetation lies directly underneath the pinpointed area at 1 foot intervals. Consistently observe the underlying surface from a 90° angle directly above each pinpoint on one side of the tape. Do not count the underlying surface as vegetated if any portion of the pinpoint extends beyond the edge of the vegetation underneath in any direction. If clumps of vegetation or vegetative debris lie underneath the pinpointed area, count the surface as vegetated, unless bare soil is visible directly below the pinpointed area. When 100 observations have been made, add together the number of times a surface was counted as vegetated. This total represents the percent of flat vegetation cover (e.g., if 35 positive counts were made, then vegetation cover is 35%). If the survey area that represents a random portion of the overall conditions of the site is too small for 100 observations, make as many observations as possible. Then multiply the count of vegetated surface areas by the appropriate conversion factor to obtain percent cover. For example, if vegetation was counted 20 times within a total of 50 observations, divide 20 by 50 and multiply by 100 to obtain a flat vegetation cover of 40%.

**2.5.2** Conduct the line transect test method, as described in subsection 2.5.1 of this appendix, an additional two times on areas that represent a random portion of the overall conditions of the site and average results.

**2.6 Determination Of Standing Vegetative Cover.** Standing vegetation includes vegetation that is attached (rooted) with a predominant vertical orientation. Standing vegetation, which is dead but firmly rooted, shall be considered equally protective as live vegetation. Conduct the following standing vegetation test method to determine if 30% cover or more exists. If the resulting percent cover is less than 30% but equal to or greater than 10%, then conduct the test in Section 2.4 (Determination Of Threshold Friction Velocity (TFV)) of this appendix in order to determine if the site is stabilized, such that the standing vegetation cover is equal to or greater than 10%, where threshold friction velocity, corrected for non-erodible elements, is equal to or greater than 43 cm/second.

**2.6.1** For standing vegetation that consists of large, separate vegetative structures (e.g., shrubs and sagebrush), select a survey area that represents a random portion of the overall conditions of the site that is the shape of a square with sides equal to at least 10 times the average height of the vegetative structures. For smaller standing vegetation, select a survey area of three feet by three feet.

**2.6.2** Count the number of standing vegetative structures within the survey area. Count vegetation, which grows in clumps as a single unit. Where different types of vegetation exist and/or vegetation of different height and width exists, separate the vegetative structures with similar dimensions into groups. Count the number of vegetative structures in each group within the survey area. Select an individual structure within each group that represents the average height and width of the vegetation in the group. If the structure is dense (e.g., when looking at it vertically from base to top there is little or zero open air space within its perimeter), calculate and record its frontal silhouette

area, according to Equation 6 of this appendix. Also, use Equation 6 of this appendix to estimate the average height and width of the vegetation if the survey area is larger than nine square feet. Otherwise, use the procedure in subsection 2.6.3 of this appendix to calculate the frontal silhouette area. Then calculate the percent cover of standing vegetation according to Equations 7, 8, and 9 of this appendix.

$$(\text{Average Height}) \times (\text{Average Width}) = \text{Frontal Silhouette Area.} \quad \text{Eq. 6}$$

$$(\text{Frontal Silhouette Area Of Individual Vegetative Structure}) \times (\text{Number Of Vegetation Structures Per Group}) = \text{Frontal Silhouette Area Of Group.} \quad \text{Eq. 7}$$

$$\text{Frontal Silhouette Area Of Group 1} + \text{Frontal Silhouette Area Of Group 2 (etc.)} = \text{Total Frontal Silhouette Area.} \quad \text{Eq. 8}$$

$$(\text{Total Frontal Silhouette Area/Survey Area}) \times 100 = \text{Percent Cover Of Standing Vegetation.} \quad \text{Eq. 9}$$

$$[(\text{Number Of Circled Gridlines Within The Outlined Area Counted That Are Not Covered By Vegetation/Total Number Of Gridline Intersections Within The Outlined Area}) \times 100] = \text{Percent Open Space.} \quad \text{Eq. 10}$$

$$100 - \text{Percent Open Space} = \text{Percent Vegetative Density.} \quad \text{Eq. 11}$$

$$\text{Percent Vegetative Density}/100 = \text{Vegetative Density.} \quad \text{Eq. 12}$$

$$[\text{Max. Height} \times \text{Max. Width}] \times [\text{Vegetative Density}/0.4]0.5 = \text{Frontal Silhouette Area.} \quad \text{Eq. 13}$$

**Note:** Ensure consistent units of measurement (e.g., square meters or square inches when calculating percent cover).

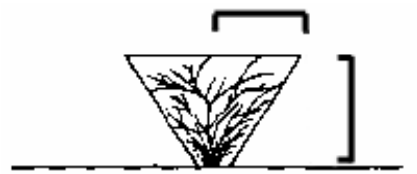
**2.6.3 Vegetative Density Factor.** Cut a single, representative piece of vegetation (or consolidated vegetative structure) to within 1 cm of surface soil. Using a white paper grid or transparent grid over white paper, lay the vegetation flat on top of the grid (but do not apply pressure to flatten the structure). Grid boxes of 1 inch or 1/2 inch squares are sufficient for most vegetation when conducting this procedure. Using a marker or pencil, outline the shape of the vegetation along its outer perimeter, according to Figure B, C, or D of this appendix, as appropriate. (Note: Figure C differs from Figure D primarily in that the width of vegetation in Figure C is narrow at its base and gradually broadens to its tallest height. In Figure D, the width of the vegetation generally becomes narrower from its midpoint to its tallest height.) Remove the vegetation, count and record the total number of gridline intersections within the outlined area, but do not count gridline intersections that connect with the outlined shape. There must be at least 10 gridline intersections within the outlined area and preferably more than 20, otherwise, use smaller grid boxes. Draw small circles (no greater than a 3/32 inch diameter) at each gridline intersection counted within the outlined area. Replace the vegetation on the grid within its outlined shape. From a distance of approximately 2 feet directly above the grid, observe each circled gridline intersection. Count and record the number of circled gridline intersections that are not covered by any piece of the vegetation. To calculate percent vegetative density, use Equations 10 and 11 of this appendix. If percent vegetative density is equal to or greater than 30, use an equation (one of the equations-Equations 16, 17, or 18 of this appendix) that matches the outline used to trace the vegetation (Figure B, C, or D) to calculate its frontal silhouette area. If percent vegetative density is less than 30, use Equations 12 and 13 of this appendix to calculate the frontal silhouette area.

**Figure B. Cylinder**



$$\text{Frontal Silhouette Area} = \text{Maximum Height} \times \text{Maximum Width} \quad \text{Eq. 16}$$

**Figure C. Inverted Cone**



$$\text{Frontal Silhouette Area} = \text{Maximum Height} \times \frac{1}{2} \text{ Maximum Width} \quad \text{Eq. 17}$$

**Figure D. Upper Sphere**



$$\text{Frontal Silhouette Area} = (3.14 \times \text{Maximum Height} \times 1/2 \text{ Maximum Width})/2 \quad \text{Eq. 18}$$

**2.7 Rock Test Method.** The Rock Test Method, which is similar to Section 2.4 (Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)) of this appendix, examines the wind-resistance effects of rocks and other non-erodible elements on disturbed surfaces. Non-erodible elements are objects larger than 1 centimeter (cm) in diameter that remain firmly in place even on windy days. Typically, non-erodible elements include rocks, stones, glass fragments, and hardpacked clumps of soil lying on or embedded in the surface. Vegetation does not count as a non-erodible element in this method. The purpose of this test method is to estimate the percent cover of non-erodible elements on a given surface to see whether such elements take up enough space to offer protection against windblown dust. For simplification, the following test method refers to all non-erodible elements as “rocks”.

- 2.7.1** Select a 1 meter by 1 meter survey area that represents the general rock distribution on the surface. (A 1 meter by 1 meter area is slightly greater than a 3 foot by 3 foot area.) Mark-off the survey area by tracing a straight, visible line in the dirt along the edge of a measuring tape or by placing short ropes, yard sticks, or other straight objects in a square around the survey area.
- 2.7.2** Without moving any of the rocks or other elements, examine the survey area. Since rocks  $>3/8$  inch (1 cm) in diameter are of interest, measure the diameter of some of the smaller rocks to get a sense for which rocks need to be considered.
- 2.7.3** Mentally group the rocks  $>3/8$  inch (1 cm) diameter lying in the survey area into small, medium, and large size categories. Or, if the rocks are all approximately the same size, simply select a rock of average size and typical shape. Without removing any of the rocks from the ground, count the number of rocks in the survey area in each group and write down the resulting number.
- 2.7.4** Without removing rocks, select one or two average-size rocks in each group and measure the length and width. Use either metric units or standard units. Using a calculator, multiply the length times the width of the rocks to get the average dimensions of the rocks in each group. Write down the results for each rock group.
- 2.7.5** For each rock group, multiply the average dimensions (length times width) by the number of rocks counted in the group. Add the results from each rock group to get the total rock area within the survey area.
- 2.7.6** Divide the total rock area, calculated in subsection 2.7.5 of this appendix, by two (to get frontal area). Divide the resulting number by the size of the survey area (make sure the units of measurement match), and multiply by 100 for percent rock cover. For example, the total rock area is 1,400 square centimeters, divide 1,400 by 2 to get 700. Divide 700 by 10,000 (the survey area is 1 meter by 1 meter, which is 100 centimeters by 100 centimeters or 10,000 centimeters) and multiply by 100. The result is 7% rock cover. If rock measurements are made in inches, convert the survey area from meters to inches (1 inch = 2.54 centimeters).
- 2.7.7** Select and mark-off two additional survey areas and repeat the procedures described in subsection 2.7.1 through subsection 2.7.6 of this appendix. Make sure the additional survey areas also represent the general rock distribution on the site. Average the percent cover results from all three survey areas to estimate the average percent of rock cover.

- 2.7.8** If the average rock cover is greater than or equal to 10%, the surface is stable. If the average rock cover is less than 10%, follow the procedures in subsection 2.7.9 of this appendix.
- 2.7.9** If the average rock cover is less than 10%, the surface may or may not be stable. Follow the procedures in Section 2.4 (Determination Of Threshold Friction Velocity (TFV)) of this rule and use the results from the rock test method as a correction (i.e., multiplication) factor. If the rock cover is at least 1%, such rock cover helps to limit windblown dust. However, depending on the soil's ability to release fine dust particles into the air, the percent rock cover may or may not be sufficient enough to stabilize the surface. It is also possible that the soil itself has a high enough TFV to be stable without even accounting for rock cover.
- 2.7.10** After completing the procedures described in subsection 2.7.9 of this appendix, use Table 2 of this appendix to identify the appropriate correction factor to the TFV, depending on the percent rock cover. Multiply the correction factor by the TFV value for a final TFV estimate that is corrected for non-erodible elements.

### 3. ~~TIME-AVERAGED METHODS OF~~ VISUAL OPACITY DETERMINATION OF EMISSIONS FROM DUST GENERATING OPERATIONS

- 3.1 Applicability.** This method is applicable for the determination of opacity of fugitive dust plumes from dust generating operations. ~~A time-averaged regulation is any regulation that requires averaging visible emission data to determine the opacity of visible emissions over a specific time period.~~
- 3.2 Principle.** The opacity of emissions from sources of visible emissions is determined visually by an observer qualified according to the procedures of Section 3.4 of this appendix.
- 3.3 Procedures.** An observer qualified, in accordance with Section 3.4 of this appendix, shall use the following procedures for visually determining the opacity of emissions.
- ~~3.3.1 Procedures For Emissions From Stationary Sources. These procedures are not applicable to this section.~~
- ~~3.3.2~~ **3.3.1** To determine the opacity of non-continuous dust plumes caused by activities including, but not limited to, bulk material loading/unloading, non-conveyORIZED screening, or trenching with backhoes:
- a. Position.** Stand at least 25 feet from the dust generating operation in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Choose a discrete portion of the operation for observation, such as the unloading point, not the whole operation. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to the dust plume and wind direction. If multiple plumes are involved, do not include more than one plume in the line of sight at one time.
  - b. Initial Fallout Zone.** The initial fallout zone within the plume must be identified. Record the distance from the equipment or path that is your identified initial fallout zone. The initial fallout zone is that area where the heaviest particles drop out of the entrained fugitive dust plume.

Opacity readings should be taken at the maximum point of the entrained fugitive dust plume that is located outside the initial fallout zone.

- c. **Field Records.** Note the following on an observational record sheet:
  - 1. Location of dust generating operation, type of operation, type of equipment in use and activity, and method of control used, if any;
  - 2. Observer's name, certification data and affiliation, a sketch of the observer's position relative to the dust generating operation, and observer's estimated distance and direction to the location of the dust generating operation;
  - 3. Time that readings begin, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds); and
  - 4. Color of the plume and type of background.
- d. **Observations.** Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make two observations per discrete activity, beginning with the first reading at zero seconds and the second reading at five seconds. The zero-second observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume but, instead, observe the plume briefly at zero seconds and then again at five seconds.
- e. **Recording Observations.** Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 5-second period. Repeat observations until you have recorded at least a total of 12 consecutive opacity readings. The 12 consecutive readings must be taken within the same period of observation but must not exceed one hour. Observations immediately preceding and following interrupted observations can be considered consecutive (e.g., vehicle traveled in front of path, plume doubled-over).
- f. **Data Reduction.** Average 12 consecutive opacity readings together. If the average opacity reading equals 20% or lower, the dust generating operation is in compliance. ~~with the opacity standard described in Rule 310 of these rules.~~

~~3.3.3~~**3.3.2** To determine the opacity of continuous dust plumes caused by equipment and activities including but not limited to graders, trenchers, paddlewheels, blades, clearing, leveling, and raking:

- a. **Position.** Stand at least 25 feet from the dust generating operation to provide a clear view of the emissions with the sun oriented in the 140° sector to your back. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to the dust plume and wind direction.
- b. **Dust Plume.** Evaluate the dust plume generation and determine if the observations will be made from a single plume or from multiple related plumes.
  - 1. If a single piece of equipment is observed working, then all measurements should be taken off the resultant plume as long as the equipment remains within the 140° sector to the back.

2. If there are multiple related sources or multiple related points of emissions of dust from a particular activity, or multiple pieces of equipment operating in a confined area, opacity readings should be taken at the densest point within the discrete length of equipment travel path within the 140° sector to the back. Readings can be taken for more than one piece of equipment within the discrete length of travel path within the 140° sector to the back.
- c. **Initial Fallout Zone.** The initial fallout zone within the plume must be identified. Record the distance from the equipment or path that is your identified initial fallout zone. The initial fallout zone is that area where the heaviest particles drop out of the entrained fugitive dust plume. Opacity readings should be taken at the maximum point of the entrained fugitive dust plume that is located outside the initial fallout zone.
  - d. **Field Records.** Note the following on an observational record sheet:
    1. Location of the dust generating operation, type of operation, type of equipment in use and activity, and method of control used, if any;
    2. Observer's name, certification data and affiliation, a sketch of the observer's position relative to the dust generating operation, and observer's estimated distance and direction to the location of the dust generating operation; and
    3. Time that readings begin, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds).
  - e. **Observations.** Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make opacity observations at a point beyond the fallout zone. The observations should be made at the densest point. Observations will be made every 10 seconds until at least 12 readings have been recorded. Do not look continuously at the plume, but observe the plume momentarily at 10-second intervals. If the equipment generating the plume travels outside the field of observation or if the equipment ceases to operate, mark an "x" for the 10-second reading interval. Mark an "x" when plumes are stacked or doubled, either behind or in front, or become parallel to line of sight. Opacity readings identified as "x" shall be considered interrupted readings.
  - f. **Recording Observations.** Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 10-second period.
  - g. **Data Reduction.** Average 12 consecutive opacity readings together. If the average opacity reading equals 20% or lower, the dust generating operation is in compliance. ~~with the opacity standard described in Rule 310 of these rules.~~

### 3.4 Qualification and Testing.

- 3.4.1 **Certification Requirements.** To receive certification as a qualified observer, a candidate must be tested and demonstrate the ability to assign opacity readings in 5% increments to 25 different black plumes and 25 different white

plumes, with an error not to exceed 15% opacity on any one reading and an average error not to exceed 7.5% opacity in each category. Candidates shall be tested according to the procedures described in subsection 3.4.2 of this appendix. Any smoke generator used pursuant to subsection 3.4.2 of this appendix shall be equipped with a smoke meter, which meets the requirements of subsection 3.4.3 of this appendix. Certification tests that do not meet the requirements of subsections 3.4.2 and 3.4.3 of this appendix are not valid. The certification shall be valid for a period of 6 months, and after each 6-month period the qualification procedures must be repeated by an observer in order to retain certification.

**3.4.2 Certification Procedure.** The certification test consists of showing the candidate a complete run of 50 plumes, 25 black plumes and 25 white plumes, generated by a smoke generator. Plumes shall be presented in random order within each set of 25 black and 25 white plumes. The candidate assigns an opacity value to each plume and records the observation on a suitable form. At the completion of each run of 50 readings, the score of the candidate is determined. If a candidate fails to qualify, the complete run of 50 readings must be repeated in any retest. The smoke test may be administered as part of a smoke school or training program, and may be preceded by training or familiarization runs of the smoke generator, during which candidates are shown black and white plumes of known opacity.

**3.4.3 Smoke Generator Specifications.** Any smoke generator used for the purpose of subsection 3.4.2 of this appendix shall be equipped with a smoke meter installed to measure opacity across the diameter of the smoke generator stack. The smoke meter output shall display in-stack opacity, based upon a path length equal to the stack exit diameter on a full 0% to 100% chart recorder scale. The smoke meter optical design and performance shall meet the specifications shown in Table A of this appendix. The smoke meter shall be calibrated as prescribed in subsection 3.4.3(a) of this appendix prior to conducting each smoke reading test. At the completion of each test, the zero and span drift shall be checked, and if the drift exceeds plus or minus 1% opacity, the condition shall be corrected prior to conducting any subsequent test runs. The smoke meter shall be demonstrated, at the time of installation, to meet the specifications listed in Table A of this appendix. This demonstration shall be repeated following any subsequent repair or replacement of the photocell or associated electronic circuitry, including the chart recorder or output meter, or every 6 months, whichever occurs first.

- a. Calibration.** The smoke meter is calibrated after allowing a minimum of 30 minutes warm-up by alternately producing simulated opacity of 0% and 100%. When stable response at 0% or 100% is noted, the smoke meter is adjusted to produce an output of 0% or 100%, as appropriate. This calibration shall be repeated until stable 0% and 100% readings are produced without adjustment. Simulated 0% and 100% opacity values may be produced by alternately switching the power to the light source on and off while the smoke generator is not producing smoke.
- b. Smoke Meter Evaluation.** The smoke meter design and performance are to be evaluated as follows:
  - 1. Light Source.** Verify, from manufacturer's data and from voltage measurements made at the lamp, as installed, that the lamp is operated within plus or minus 5% of the nominal rated voltage.

2. **Spectral Response Of Photocell.** Verify from manufacturer's data that the photocell has a photopic response (i.e., the spectral sensitivity of the cell shall closely approximate the standard spectral-luminosity curve for photopic vision which is referenced in (b) of Table A of this appendix).
3. **Angle Of View.** Check construction geometry to ensure that the total angle of view of the smoke plume, as seen by the photocell, does not exceed 15°. Calculate the total angle of view as follows:  

$$\text{Total Angle Of View} = 2 \tan^{-1} d/2L$$
Where:  
d = The photocell diameter + the diameter of the limiting aperture; and  
L = The distance from the photocell to the limiting aperture.  
The limiting aperture is the point in the path between the photocell and the smoke plume where the angle of view is most restricted. In smoke generator smoke meters, this is normally an orifice plate.
4. **Angle Of Projection.** Check construction geometry to ensure that the total angle of projection of the lamp on the smoke plume does not exceed 15°. Calculate the total angle of projection as follows:  

$$\text{Total Angle Of Projection} = 2 \tan^{-1} d/2L$$
Where:  
d = The sum of the length of the lamp filament + the diameter of the limiting aperture; and  
L = The distance from the lamp to the limiting aperture.
5. **Calibration Error.** Using neutral-density filters of known opacity, check the error between the actual response and the theoretical linear response of the smoke meter. This check is accomplished by first calibrating the smoke meter, according to subsection 3.4.3(a) of this appendix, and then inserting a series of three neutral-density filters of nominal opacity of 20%, 50%, and 75% in the smoke meter path length. Use filters calibrated within plus or minus 2%. Care should be taken when inserting the filters to prevent stray light from affecting the meter. Make a total of five nonconsecutive readings for each filter. The maximum opacity error on any one reading shall be plus or minus 3%.
6. **Zero And Span Drift.** Determine the zero and span drift by calibrating and operating the smoke generator in a normal manner over a 1-hour period. The drift is measured by checking the zero and span at the end of this period.
7. **Response Time.** Determine the response time by producing the series of five simulated 0% and 100% opacity values and observing the time required to reach stable response. Opacity values of 0% and 100% may be simulated by alternately switching the power to the light source off and on while the smoke generator is not operating.

**Table A. Smoke Meter Design And Performance Specifications**

Parameter	Specification
a. Light Source	Incandescent lamp operated at nominal rated voltage.
b. Spectral response of photocell	Photopic (daylight spectral response of the human eye).
c. Angle of view	15° maximum total angle
d. Angle of projection	15° maximum total angle
e. Calibration error	Plus or minus 3% opacity, maximum.
f. Zero and span drift	Plus or minus 1% opacity, 30 minutes.
g. Response time	Less than or equal to 5 seconds

#### **4. VISUAL OPACITY DETERMINATION OF EMISSIONS FROM LIVESTOCK ACTIVITIES - CORRALS, PENS, AND ARENAS**

**4.1 Applicability.** This method is applicable for the determination of opacity of fugitive dust plumes from livestock activities-corrals, pens, and arenas.

**4.2 Principle.** The opacity of emissions from livestock activities-corrals, pens, and arenas is determined visually by an observer qualified according to Section 3.4 of this appendix.

**4.3 Procedures.** An observer qualified, in accordance with Section 3.4 of this appendix, shall use the following procedures for visually determining the opacity of emissions:

**4.3.1 Position.** Stand at a position at least 5 meters from the livestock activities-corrals, pens, and arenas in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Consistent as much as possible with maintaining the above requirements, make opacity observations from a position such that the line of sight is approximately perpendicular to the plume and wind direction. As much as possible, if multiple plumes are involved, do not include more than one plume in the line of sight at one time.

**4.3.2 Field Records.** Record the name of the site, method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the livestock activity-corrals, pens, and arenas. Also, record the time, estimated distance to the livestock activity-corrals, pens, and arenas location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), observer's position relative to the livestock activity-corrals, pens, and arenas, and color of the plume and type of background on the visible emission observation from when opacity readings are initiated and completed.

**4.3.3 Observations.** Make opacity observations, to the extent possible, using a contrasting background. For storage piles, make opacity observations approximately 1 meter above the surface from which the plume is generated. The initial observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume, but instead observe the plume momentarily at 15-second intervals.

**4.3.4 Recording Observations.** Record the opacity observations to the nearest 5% every 15 seconds on an observational record sheet. If a multiple plume exists at the time of an observation, do not record an opacity reading. Mark an "x" for that reading. If the livestock activity-corrals, pens, and arenas ceases operating, mark an "x" for the 15-second interval reading. Readings identified as "x" shall be considered interrupted readings.

**4.3.5 Data Reduction.** Within any 60-minute period, count at least three minutes that are greater than 20% opacity. If at least 13 readings are greater than 20% opacity, the livestock activity-corrals, pens, and arenas is not in compliance. Readings immediately preceding and following interrupted readings shall be deemed consecutive and in no case shall two sets overlap, resulting in multiple violations.

**NOTICE OF PROPOSED RULEMAKING**  
**MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS**  
**RULE 300 - VISIBLE EMISSIONS**

**PREAMBLE**

**1. Sections affected**

Rule 300

**Rulemaking action**

Amend

**2. Statutory authority for the rulemaking:**

Authorizing statutes: A.R.S. §§ 49-474, 49-479, and 49-480

Implementing statute: A.R.S. § 49-112

**3. List of all previous notices appearing in the register addressing the proposed rule:**

Notice of Rulemaking Docket Opening: 13 A.A.R. 3373, October 5, 2007

**4. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:**

Name: Johanna M. Kuspert or Jo Crumbaker

Maricopa County Air Quality Department

Address: 1001 N. Central Ave, Suite 595

Phoenix, AZ 85004

Telephone: 602-506-6710 or 602-506-6705

Fax Number: 602-506-6179

Email Address: jkuspert@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

**5. An explanation of the rule, including the agency's reasons for initiating the rulemaking:**

The Maricopa County Air Quality Department (MCAQD) is proposing revisions to Rule 300. The MCAQD is proposing these revisions to Rule 300 to implement a control measure and increase compliance with existing rules for the Five Percent Plan for PM<sub>10</sub>. On June 6, 2007, the Environmental Protection Agency (EPA) finalized its finding that the Phoenix Nonattainment Area did not attain the 24-hour PM<sub>10</sub> standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007). Under Section 189(d) of the CAA, serious PM<sub>10</sub> nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, "plan revisions which provide for attainment of the PM<sub>10</sub> air quality standard and, from the date of such submission until attainment, for an annual reduction in PM<sub>10</sub> or PM<sub>10</sub> precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared

for such area.” In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for PM<sub>10</sub> by December 31, 2007.

**PM<sub>10</sub> Nonattainment Status History:**

In accordance with 1990 Clean Air Act Amendments, the Maricopa County nonattainment area was initially classified as "moderate" for PM<sub>10</sub> pollution. As a moderate nonattainment area, Maricopa County was required to submit to the EPA a moderate PM<sub>10</sub> nonattainment area plan and to show attainment of the PM<sub>10</sub> national ambient air quality standards (NAAQS) by December 31, 1994. Moderate PM<sub>10</sub> nonattainment area plans were submitted to the EPA in 1991 and 1993.

The Maricopa County moderate PM<sub>10</sub> nonattainment area, upon the EPA's findings, failed to attain the NAAQS by December 31, 1994. Consequently, on May 10, 1996, the EPA reclassified Maricopa County as a serious PM<sub>10</sub> nonattainment area. Maricopa County was then required to submit a serious PM<sub>10</sub> nonattainment area plan, which had to include best available control measures (BACM), measures designed to achieve the maximum degree of emissions reduction for PM<sub>10</sub> sources. Maricopa County had to show attainment of the PM<sub>10</sub> NAAQS by December 21, 2001.

Emission inventories and air quality modeling analysis of existing control measures showed that attainment could not be reached by December 21, 2001. A shortfall of a 16.4% reduction in PM<sub>10</sub> concentration was identified. The CAA allows states to request an extension of this attainment date for up to five years, providing the state demonstrates that the plan includes the most stringent measures (MSM) that are included in any state's plan or achieved in practice by any State, and can be feasibly implemented in the area. Consequently, a rigorous planning effort was conducted to develop 77 additional control measures. The serious PM<sub>10</sub> nonattainment area plan was submitted to the EPA on July 9, 1999. The EPA approved the revised serious PM<sub>10</sub> nonattainment area plan in April 2002, contingent on the completion of three commitments by Maricopa County. The revisions to Rule 310 (adopted April 7, 2004) addressed the commitments.

As a result of litigation on the moderate PM<sub>10</sub> nonattainment area plan, the Arizona Department Of Environmental Quality (ADEQ's) prepared and submitted a Plan For Attainment Of The 24-Hour PM<sub>10</sub> Standard–Maricopa County PM<sub>10</sub> Nonattainment Area in May 1997. EPA partially disapproved the Arizona 24-hour Standard PM<sub>10</sub> SIP revision triggering a federal implementation plan (FIP) obligation, which remains in place, related to the area's PM<sub>10</sub> moderate area plan. The obligation resulted from EPA disapproved those sections of the SIP addressing unpaved roads, unpaved shoulders, unpaved parking lots, vacant lots and agriculture. EPA found that the SIP did not contain measures to reduce the emissions from or the number of existing sources in these categories and therefore failed to implement

reasonably available control measures. Under the court ordered consent decree, EPA finalized a FIP in July 1998 for the Maricopa County PM<sub>10</sub> nonattainment area that addresses those four categories of sources.

On July 2, 2002, the Environmental Protection Agency (EPA) found the controls proposed in the, inadequate to ensure the attainment of the PM<sub>10</sub> national ambient air quality standards (NAAQS) at the Salt River air quality monitoring sites. The finding of inadequacy included the State Implementation Plan's (SIP's) attainment and reasonable further progress (RFP) demonstrations for the 24-hour PM<sub>10</sub> standard at the Salt River monitoring sites and three other microscale sites in the Maricopa County PM<sub>10</sub> nonattainment area (Maryvale, Gilbert, and West Chandler).

Although the EPA approved Arizona's 1997 SIP revision and additional required controls proposed by Maricopa County on August 4, 1997, EPA's Aerometric Information Retrieval System (AIRS) continued to show exceedances at the Maricopa County PM<sub>10</sub> nonattainment area Salt River site - recording expected exceedances in 1999, 2000, and through three quarters of 2001. Consequently, the EPA required Arizona to submit a SIP revision to identify and implement corrective PM<sub>10</sub> control provisions in the Salt River Study Area and for similar significant sources in the Maricopa County PM<sub>10</sub> nonattainment area.

Arizona's SIP revision was required to provide for attainment in the Salt River site no later than December 31, 2006, in accordance with CAA §189(b)(1)(A) and 188(e), and was required to include control strategies that meet the best available control measures (BACM) test and the most stringent measures (MSM) test for significant sources and source categories.

The Final Revised PM<sub>10</sub> State Implementation Plan For The Salt River Area dated August 2004 contained Arizona's revisions to the State Implementation Plan for the Maricopa County PM<sub>10</sub> serious nonattainment area and included the following State Implementation Plan requirements, as described by the EPA in its Federal Register notice of disapproval (67 FR 44369, July 2, 2002):

- A modeling demonstration showing that the level of emissions reductions from application of BACM-MSM for all significant sources of PM<sub>10</sub> will result in attainment of the 24-hour NAAQS by December 31, 2006, at the Salt River PM<sub>10</sub> monitoring site, in accordance with CAA §189(b)(1)(A) and §188(e).
- Commitments to implement best available control measures (BACM)-most stringent measures (MSM) for sources significantly contributing to exceedances of the 24-hour PM<sub>10</sub> standard in the Salt River area as expeditiously as possible (CAA §189(b)(1)(B)) and a commitment that all BACM and MSM control measures adopted and applied to sources in the Salt River Study Area

will be applied to all similar sources throughout the Maricopa County PM10 serious nonattainment area.

- A demonstration that the plan constitutes Reasonable Further Progress (RFP) up to the attainment deadline - December 31, 2006.
- A demonstration that all the requirements of the federal Clean Air Act Amendments that pertain to serious PM10 nonattainment areas are met - including CAA §110(l), §110(a)(2)(E)(i), and 40 CFR §51.280 and §51.111).

#### **Explanation For Current Rulemaking Proposals:**

For the Five Percent Plan for PM10, an analysis was again conducted to identify additional measures to reduce emissions and/or improve compliance with existing requirements. Finally, the MCAQD is also proposing to include a control measure adopted as BACM/MSM in Maricopa County Air Pollution Control Rule 316 in June 2005 for the Salt River SIP in Rule 300. Specifically, the MCAQD is proposing to add a no visible emissions of particulate matter at the property line standard to Rule 300. This proposed revision will make Rule 300 consistent with Rule 310, Rule 310.01, and Rule 316 that also limit particulate matter.

The MCAQD further sought to review rules from other agencies to increase the consistency of compliance with the existing visible emission standard of 20%. The MCAQD reviewed rules from Clark County, Nevada; South Coast Air Quality Management District, California (SCAQMD); and San Joaquin Unified Air Pollution Control District, California (SJUAPCD) to identify difference between County rules and rules from areas that successfully met the December 31, 2006 attainment date. The MCAQD also reviewed EPA's notice finalizing Method 203 (A), (B), and (C) (71 FR 55119, September 21, 2006). In the summary of that notice EPA states, "The intended effect is to provide States with an expanded array of data reduction procedures for determining compliance with SIP opacity regulations." These areas that successfully met the December 31, 2006 attainment date administer rules that utilize a time-exception form of the standard expressed as "... shall not exceed 20% opacity for more than 3 minutes out of any 60 minute period." This form of data reduction for the 20% opacity standard limits the number of excursions over the 20% level of the standard resulting in more consistent compliance with the existing standard.

#### **Section By Section Explanation Of Changes:**

- Section 200: To add "See Rule 100-General Provisions And Definitions of these rules for definitions of terms that are used but not specifically defined in this rule."
- Section 201: To delete "Intermittent Source - A source which causes or discharges visible emissions for a duration of less than 6 consecutive minutes."

- Section 301: To delete from heading “Opacity/General”. To delete “No person shall discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity.”
- Section 301.1: To add “No person shall discharge into the ambient air, from any single source of emissions, any air contaminant, other than uncombined water, in excess of 20% opacity for a period aggregating more than three minutes in any 60-minute period.”
- Section 301.2: To add “No person shall cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.”
- Section 501: To delete “except as provided in Section 502 of this rule” and to add “as modified by EPA Reference Method 203B.”
- Section 502: To delete “Compliance Determination-Opacity Of Visible Emissions From Intermittent Sources: Opacity of visible emissions from intermittent sources shall be determined by observations of visible emissions conducted in accordance with EPA Reference Method 9, except that at least 12 rather than 24 consecutive readings shall be required at 15-second intervals for the averaging time.”

## **6. Demonstration of compliance with A.R.S. §49-112:**

Under ARS §49-479(C), a county may not adopt a rule or ordinance that is more stringent than the rules adopted by the Director of the Arizona Department of Environmental Quality (ADEQ) for similar sources unless it demonstrates compliance with the requirements of ARS §49-112:

### **ARS §49-112 (A)**

When authorized by law, a county may adopt a rule, ordinance, or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all the following conditions are met:

1. The rule, ordinance or other regulation is necessary to address a peculiar local condition;
2. There is credible evidence that the rule, ordinance or other regulation is either:
  - (a) Necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible.
  - (b) Required under a federal statute or regulation, or authorized pursuant to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule, ordinance or other regulation is equivalent to federal statutes or regulations.

The MCAQD is proposing to revise Rule 300 in order to address a peculiar local condition: EPA’s finding that the Phoenix Nonattainment Area did not attain the 24-hour PM<sub>10</sub> standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007). The Phoenix

Nonattainment Area is the only nonattainment area designated serious for PM<sub>10</sub> in Arizona. Consequently, stronger regulations must be adopted in this area to address a serious health threat. Under Section 189(d) of the CAA, serious PM<sub>10</sub> nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, “plan revisions which provide for attainment of the PM<sub>10</sub> air quality standard and, from the date of such submission until attainment, for an annual reduction in PM<sub>10</sub> or PM<sub>10</sub> precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area.” In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for PM<sub>10</sub> by December 31, 2007. The Phoenix Nonattainment Area is one of three areas in the entire country for which EPA has issued a finding that Section 189(d) has been triggered. Because of this, the revision complies with A.R.S. § 49-112 (A)(1) and A.R.S. § 49-112 (A) (2).

**7. A reference to any study relevant to the rule that the agency reviewed and either proposes to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:**

Not applicable.

**8. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision:**

Not applicable.

**9. The preliminary summary of the economic, small business, and consumer impact:**

**Rule Identification:**

This rulemaking amends Rule 300, “Visible Emissions,” in Maricopa County Air Pollution Control Regulations. The proposed rule adds a no visible emissions of particulate matter at the property line standard to Rule 300. This proposed revision will make Rule 300 consistent with Rules 310, 310.01 and Rule 316 that also limit particulate matter. A second proposed revision changes the data reduction methodology for the existing 20% and reads “... shall not exceed 20% opacity for more than 3 minutes out of any 60 minute period.” This form of data reduction for the 20% opacity standard limits the number of excursions over the 20% level of the standard resulting in more consistent compliance with the existing standard.

**Entities Directly Impacted:**

Entities directly impacted by this rulemaking include certain permitted sources, pollution control vendors, contractors, consultants, lawyers, the County, private persons and consumers. The County

estimates that as few as 20-30 sources might be affected by this rulemaking. Although many industry categories, including woodworking operations, metallurgical operations, scrap metal operations, and cotton gins are potentially subject to Rule 300, most of these sources will be unaffected by this rule as they already comply with either form of data reduction for determining compliance with the standard, are already subject to 20%, or lower, opacity standards, or are regulated by New Source Performance Standards (NSPS), Title 40, Part 60 of the Code of Federal Regulations.

**Probable Costs and Benefits:**

**A. Costs to the state of Arizona:**

If Arizona is unable to submit a plan that demonstrates a Five Percent per year reduction and demonstrates attainment at the monitors based on implemented control measures such as this rule, EPA will be required to make a nondiscretionary finding that Arizona has failed to submit an approvable plan. If the County and Arizona fail to correct the identified deficiencies within the timeframe specified in the notice, the sanctions under § 179 of the Clean Air Act (CAA) will be imposed. Sanctions include loss of highway funds and stricter emission offset requirements for major sources. In addition, under § 110(c) of the CAA, EPA would then need to promulgate a Federal Implementation Plan no later than 24 months after the date of publication of the notice.

**B. Potential Costs and Benefits to the Public:**

The most obvious benefit arising from promulgation of this rule is reduction in the harmful effects of air pollution, most notably particulates. Air pollution harms lung function, damages lung tissue, and increases respiratory symptoms, such as coughing, shortness of breath, wheezing and asthma attacks, and can impair the body's immune system response to inhaled particles. Results may include restricted activities, and work time and revenues lost due to increased hospital admissions, illness and death. PM associated health risks occur even more frequently in susceptible subpopulations, such as the elderly, children with asthma, and persons with cardiopulmonary disease, and may contribute to up to 65,000 excess deaths in the U.S. annually (STAPPA and ALAPCO, Controlling Particulate Matter Under the Clean Air Act: A Menu of Options, July 1996). Even very low concentrations of particulate matter may increase risk of early death, particularly in elderly populations with preexisting cardiopulmonary diseases (STAPPA and ALAPCO, *supra*). Chronic obstructive pulmonary disease (COPD), a major cause of morbidity and mortality in the U.S., cost the country more than 32 billion dollars in 2002, a figure which does not include costs attributable to asthma (American Lung Assoc., "Trends in Chronic Bronchitis and Emphysema: Morbidity and Mortality," Epidemiology and Statistics Unit, Research and Scientific Affairs, March 2003). Notably, asthma death rates in Arizona equaled or exceeded U.S. rates from 1991-1998. In addition, in 1998, an estimated 316,200 Arizonans suffered breathing discomfort and asthma related stress (Arizona Department of Health Services, "Asthma Control Program," Office of Nutrition and Chronic Disease Prevention Services, October, 2002). Therefore,

the County expects the countywide property line standard and change in data reduction methodology to translate into cost-saving benefits to the general public by reducing emissions-related adverse health effects and the concurrent lost revenue and health care costs. In addition to direct health-related effects, a statewide opacity limit of 20% will affect the general quality of life, particularly for those persons living near sources. A lower opacity limit will concurrently increase visibility and enhance the public's enjoyment of Arizona's natural resources.

**C. Potential Costs and Benefits to the Regulated Community:**

Both the proposed property line standard for particulate matter and the new data reduction methods for the existing opacity standard will require that owners/operators more closely monitor their activities, processes, and controls to ensure proper operation at all times. As described in the explanation in #5 above, a number of western serious PM-10 nonattainment areas administer rules that include both of the proposed revisions. Those areas contain many similar sources that comply with the proposed standards and are in the same business as sources in Maricopa County. Furthermore, an EPA study (Office of Air Quality Planning and Standards, "Opacity Regulations: A Summary of State Regulations and Rulemaking Status", Special Report February 1983) contains information indicating that the state or a local agency in 28 states has adopted a time-exception form of data reduction for their opacity standard.

Although each regulated facility is unique, the costs of compliance associated with the new rule are similar and may include: new capital equipment or modification of existing equipment, adjusting or enhancing operations and maintenance; replacement or modification of processes and designs; and indirect and administrative costs. Compliance might also result, however, in a variety of offsetting financial benefits for the source. They range from lower operation and maintenance costs, as a result of updated and more efficient equipment, to fewer man-hours lost and lower health care costs due to a decrease in pollution-exacerbated illnesses. During the informal workshop process for this rulemaking, the County requested that information on source-specific costs to achieve compliance with these standards, but has not yet received any information. The County is specifically requesting in this preliminary EIS source-specific information on costs to achieve compliance with the new data reduction methodology for determining compliance with the existing 20% opacity standard and no visible emissions at the property line standard.

**Small Business Analysis:**

Several small business categories were represented during the stakeholder process for this proposed rule. The County has not identified all small businesses that could be affected by this rulemaking, however, those who did participate did not express any reservations about compliance. The County has considered a variety of methods to reduce the impact of this rule on small businesses, including five

methods prescribed by A.R.S. § 41-1035: establish less stringent compliance or reporting requirements; establish less stringent schedules or deadlines for compliance or reporting requirements; consolidate or simplify the rulemaking's reporting requirements; establish performance requirements to replace design or operational standards; or exempt them from some or all of the rule requirements. For the reasons stated in item #5 of the preamble, and due to the inherent difficulty in identifying all sources which are small businesses, including the possibility that such status may change from year to year, the County has determined that it is not feasible to apply a separate opacity standard to small businesses. The County does employ an ombudsman in the Business Resource Division, to whom small businesses may address their issues with regard to compliance with the rule.

Both the proposed property line standard for particulate matter and the new data reduction methods for the existing opacity standard will require that owners/operators more closely monitor their activities, processes, and controls to ensure proper operation at all times.

As described in the explanation in #5 above, a number of western serious PM<sub>10</sub> nonattainment areas administer a property line standard. Those areas contain many similar sources that comply with property line standards and are in the same business as sources in Maricopa County. Furthermore, existing Maricopa County sources are already required to employ good housekeeping practices and monitor control equipment. To date no source has provided examples of the activities, processes or controls that may need to be modified to comply with this new requirement. The MCAQD is asking for information or examples that would allow for more than a qualitative analysis of the economic impact of the proposed standard.

As described in the explanation in #5 above, a number of western serious PM<sub>10</sub> nonattainment areas administer a time-exception data reduction methodology for their visible opacity limits. Furthermore, an EPA study (Office of Air Quality Planning and Standards, "Opacity Regulations: A Summary of State Regulations and Rulemaking Status", Special Report February 1983) contains information indicating that the state or a local agency in 28 states has adopted a time-exception form of data reduction for their opacity standard. Those areas contain many similar sources that comply with time-exception data reduction methods for visible emission standards and are in the same business as sources in Maricopa County. To date no source has provided examples of the activities, processes or controls that may need to be modified to comply with this new requirement. The MCAQD is asking for information or examples that would allow for more than a qualitative analysis of the economic impact of the proposed standard.

**10. Name and address of department personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact statement:**

Name: Johanna M. Kuspert or Jo Crumbaker  
Maricopa County Air Quality Department  
Address: 1001 N. Central Ave, Suite 595  
Phoenix, AZ 85004  
Telephone: 602-506-6710 or 602-506-6705  
Fax Number: 602-506-6179  
Email Address: jkuspert@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

**11. The time, place and nature of the proceedings for the amendment of the rule:**

Written comments will be accepted if received between the date of this publication and December 11, 2007, 5:00 p.m. Written comments may be mailed or hand delivered to the Maricopa County Air Quality Department (see #4 above). Written comments received during the comment period will be considered formal comments to the proposed rules and will be responded to in the Notice Of Final Rulemaking.

An oral proceeding will be held on December 10, 2007 at 9:00 am at the Maricopa County Flood Control District, 2801 West Durango, Operations Building. All comments made at this oral proceeding will be considered formal comments and will be recorded and transcribed. All formal comments will be addressed in the Notice Of Final Rulemaking.

**12. Any other matters prescribed by the statute that are applicable to the specific agency or to any specific rule or class of rules:**

Not applicable

**13. Incorporations by reference and their location in the rules:**

<u>Incorporation By Reference</u>	<u>Location</u>
EPA Reference Method 9	Rule 300, Section 501
EPA Reference Method 203B	Rule 300, Section 501

**14. The full text of the rule follows:**

**REGULATION III – CONTROL OF AIR CONTAMINANTS**

**RULE 300**

**VISIBLE EMISSIONS**

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**VISIBLE EMISSIONS**

**SECTION 100 - GENERAL**

- 101 PURPOSE:** To limit the emission of air contaminants into the ambient air by establishing standards for visible emissions and opacity.
- 102 APPLICABILITY:** This rule applies to visible emissions from sources for which no source-specific opacity requirements apply. Exceptions to this rule are described in Section 302 of this rule.

**SECTION 200 – DEFINITIONS:** For the purpose of this rule, the following definitions shall apply. See Rule 100-General Provisions And Definitions of these rules for definitions of terms that are used but not specifically defined in this rule.

- 201 ~~INTERMITTENT SOURCE~~** – ~~A source which causes or discharges visible emissions for a duration of less than 6 consecutive minutes.~~
- ~~202~~201 OPACITY** - A condition of the ambient air, or any part thereof, in which an air contaminant partially or wholly obscures the view of an observer.
- ~~203~~202 PERCENT OPACITY** - The degree to which an effluent plume or any other emission of air contaminants obscures the transmission of light expressed as a percentage.
- ~~204~~203 SHUTDOWN** - The cessation of operation of any air pollution control equipment and/or process equipment for any purpose, except routine phasing out of process equipment.
- ~~205~~204 STARTUP** - The setting into operation of any air pollution control equipment and/or process equipment for any purpose, except routine phasing in of process equipment.
- ~~206~~205 UNCOMBINED WATER** - Condensed water containing no more than analytical trace amounts of other chemical elements or compounds.

## SECTION 300 – STANDARDS

**301     LIMITATIONS —OPACITY/GENERAL:** ~~No person shall discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity.~~

**301.1**    No person shall discharge into the ambient air, from any single source of emissions, any air contaminant, other than uncombined water, in excess of 20% opacity for a period aggregating more than three minutes in any 60-minute period.

**301.2**    No person shall cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.

## **302     EXCEPTIONS:**

**302.1    Charging Electric Arc Furnaces:** When charging or back-charging any electric arc furnace for which construction commenced prior to February 2, 1963, a person may discharge air contaminants, other than uncombined water, in excess of the applicable opacity limit in Section 301 of this rule for no more than an aggregate of 3 minutes in any 45 minute period; however, visible emissions resulting from such discharge of air contaminants shall not exceed 40% opacity.

**302.2    Emergency Diesel Generators (EDGs) And Equipment:** When emergency diesel generators (EDGs) and equipment must run for safety reasons and/or for safety and operational tests to meet the requirements legally imposed by the Nuclear Regulatory Commission, a person may discharge air contaminants, other than uncombined water, in excess of the applicable opacity limit in Section 301 of this rule. Any discharge of air contaminants, other than uncombined water, in excess of the opacity limit in Section 301 of this rule should not contribute to a violation of the national ambient air quality standard.

**302.3    Firing Of Ordnance At Test Facilities:** Visible emissions exceeding the opacity standards for short periods of time resulting from firing test rounds in enclosed bunkers at ordnance test facilities which do not exceed 6 minutes in length shall not constitute a violation of Section 301 of this rule.

**302.4 Opacity Training:** Equipment or processes used to train individuals in opacity observations shall be exempt from opacity standards during the preparation for and/or during the actual training session(s).

#### **SECTION 400 – ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)**

#### **SECTION 500 – MONITORING AND RECORDS**

**501 COMPLIANCE DETERMINATION - OPACITY:** Opacity shall be determined by observations of visible emissions conducted in accordance with EPA Reference Method 9 as modified by EPA Reference Method 203B, ~~except as provided in Section 502 of this rule.~~

**502 ~~COMPLIANCE DETERMINATION – OPACITY OF VISIBLE EMISSIONS FROM INTERMITTENT SOURCES:~~** ~~Opacity of visible emissions from intermittent sources shall be determined by observations of visible emissions conducted in accordance with EPA Reference Method 9, except that at least 12 rather than 24 consecutive readings shall be required at 15-second intervals for the averaging time.~~